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'Colour in Ancient Greek Clothing: A Methodological Investigation.'

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This thesis is dedicated,

to the memory of Jacqui 'Byford' Oldham,

1948-1996

&

with love and appreciation,

to John Oldham,

without whose unfailing support and enthusiasm,

it would not have been begun, much less completed.

'I'm not sorry for nothing I've done,

I'm glad I fought. I only wish he'd won.'[i]

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> "The question whether the conjunction *ut* ... should be followed by the perfect or imperfect subjunctive seemed not of the slightest significance in reference to the main end of classical education. What I wanted was ... to awaken wide sympathies and to enlarge the field of vision." Professor John Stuart Blackie.

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[i] Dylan 'Honest With Me'

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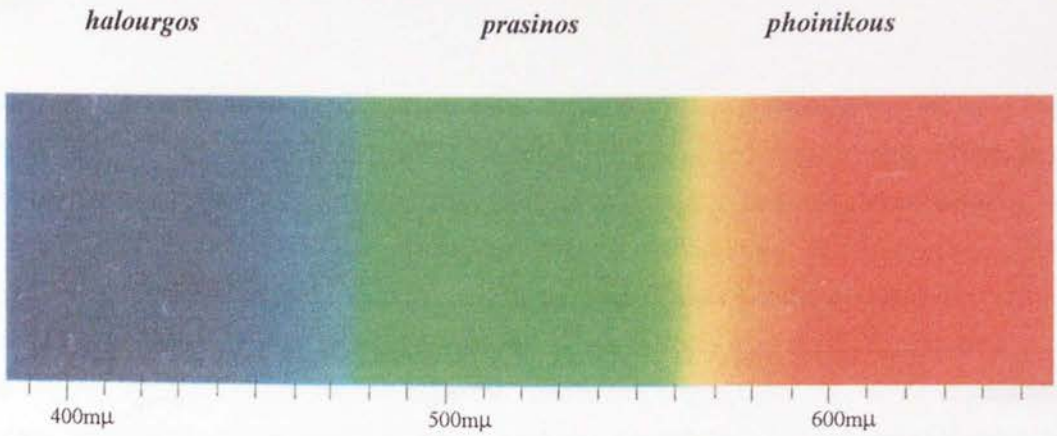

τὸ δὲ φοινικοῦν καὶ πράσινον καὶ ἁλουργὸν οὐ γίγνεται κεραννύμενον· ἡ δὲ ἶρις ταῦτ' ἔχει τὰ χρώματα. Aristotle *'Meteorologica'* 372a

"It is a light that seems unmediated either by the air or by the stratosphere. It is completely virgin, it produces overwhelming clarity of focus, it has heroic strength and brilliance. It exposes colours in their original prelapsarian state, as though straight from the imagination of God in His youngest days, when He still believed that all was good. The dark green of the pines is unfathomably and retreatingly deep, the ocean viewed from the top of a cliff is platonic in its presentation of azure and turquoise, emerald, viridian, and lapis lazuli. The eye of a goat is a living semi-precious stone halfway between amber and arylide, and the crickets are the fluorescent green of the youngest shoots of grass in the original Eden. Once the eyes have adjusted to the extreme vestal chastity of this light, the light of any other place is miserable and dank by comparison; it is nothing more than something to see by, a disappointment, a blemish." de Bernieres (1998:6-7)

"Is there any system of objects, a system of some magnitude, which can dispense with articulated language? Is not speech the inevitable relay of any signifying order? If we go beyond a few rudimentary signs ... can clothing signify without recourse to the speech that describes it, comments upon it, and provides it with signifiers and signifieds abundant enough to constitute a system of meaning?"

"'Real' clothing is burdened with practical considerations (protection, modesty, adornment); these finalities disappear from 'represented' clothing, which no longer serves to protect, to cover, or to adorn, but at most to signify *protection, modesty, adornment."* Barthes (1990:ix,12)

"The garments of the Ionians are violet-dyed, and purple, and saffron, woven with a lozenge pattern: but the top borders are marked at equal intervals with animal designs. Then there are the sarapeis, *quince-yellow, purple and white, others again of sea-purple. And Corinthian-made* kalasireis; *some of these are purple, some violet-dyed, some hyacinth; one might also buy these in flame-colour, or the colour of the sea. There are also Persian* kalasireis, *which are the finest of all."* Athenaeus 12.525c[1]

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[1] In order, ἰοβαφῆ, πορφυρᾶ, κρόκινα, μήλινοι, πορφυροῖ, λευκά, ἁλουργεῖς, πορφυραῖ, ἰοβαφεῖς, ὑακίνθιναι, φλογίνας, θαλασσοειδεῖς.

The structure of this thesis is complex but purposeful. Underlying it is a fundamental premise: "color cannot know non-existence: nothing fails to be furnished with a color."[1] One simple statement can therefore be made outright: colour (*of some kind*) was absolutely ubiquitous in Greek clothing. And therein lies the rub, the inevitable corollary of the simple fact stated by Barthes. To study colour in culture is not to question its presence or absence, it is to investigate the *salience* of *particular species* of colour. It is to consider the capacity of the human mind to perceive the near infinite varieties and interactions of hue, value and chroma, and then reduce them to culturally conditioned abstractions: the 'seven colours of the rainbow,' the 'eleven basic colour-terms,' or, more pertinently, Aristotle's 'seven categories of colour.'[2]

In short, the object of this thesis is to inquire into that parenthesis: to consider the *kinds of colour* in clothing remarked upon by the sources. If this is to be truly and effectively considered, it is necessary to recognise and isolate some of the fundamental assumptions that are made about *kinds of colour*, in contemporary culture as much as in any other. The most basic of these is that colour is a property of objects, not the result of a process of interaction between light and vision.

Although in most aspects of everyday life, there is little operative difference between treating colour as a material quality, instead of something that exists only in the eyes and mind as a response to the stimulus of light, recognising the fallacy of this assumption is important in investigating colour. One can give both general and specific examples from Greek culture. In general terms, the action of light and mechanism of vision are of integral importance to Greek philosophies of colour-perception.[3] In specific terms, the decline of 'purple' as the pre-eminent textile colour has been linked to the change from primarily outdoor (sunlit) religious and prestige activities, to indoor (lamp or candlelit) church and palace life in the Byzantine era.[4] The colour purple did not change, only the light in which it was seen.

Even more generally, the belief that 'red' (for example) exists in the world outside our heads tends to encourage the assumption that the colours which are meaningful, defined, salient in our culture, are so because of some inherent and universal property which they possess. It is this belief which cripples the capacity to actually investigate colour in another culture. Ask me to list the colours, and I will tell you, 'red, orange, yellow, green, blue, indigo and violet,' or 'white, black, red, yellow, green, blue, orange, purple, brown, pink, grey,' because these are the lists I was taught in school. Ask Aristotle, and he says

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[1] Barthes (1990:118)

[2] See p.26-28

[3] i.e. Plato *Tim.*67ff, Arist. *DeAnima* 418a25-419a25. See Ch.1

[4] Hero Granger-Taylor, 'The Disappearance of Real Purple in the Early Middle Ages' delivered at DHA Edinburgh, 2000. See also Aristotle *'Meteorologica'* 375a20-29 (Trans. H.D.P. Lee 1952) "For as fire increases fire, so dark placed by dark makes a dim light (like red) appear clear and bright. The same effect can also be seen in dyes: for there is an indescribable difference in the appearance of the colours in woven or embroidered materials when they are differently arranged; for instance, purple is quite different on a white or a black background, and variations in light can make a similar difference. So embroiderers say they often make mistakes in their colours when they work by lamplight, picking out one colour in mistake for another."

that φοινικὸς, πρασινὸς, and ἁλουργὸς are the colours of the rainbow, while λευκὸς, ξανθὸς, φοινικὸς, πρασινὸς, ἁλουργὸς, κυανὸς, φαιὸς and μέλας are the main colours.[5]

The lists differ, not because my eyes and Aristotle's are differently equipped, but because from the infinite variety of colour, our minds identify different colour-reference points, our languages describe them differently, and our cultures prioritise them differently.[6] Physically, the rainbows we all look at are the same – the refraction of sunlight into the complete spectrum of wavelengths perceived by the human eye. What differs is the ascription of salience (a category, a name) to some aspects, and not others, of that total perception.

However, the subject of this thesis is the use and significance of colour in clothing (a class of material referents with social meanings) not perception. Why should the difference matter? It matters because colour in clothing is a result of choice: it is always created (whether or not specific colours are added) as part of the process of making a garment or textile.[7] Thus it is not part of our passive, individual relationship to colour (vision). It is part of our active, cultural relationship, in which colour is seen by the mind's eye, imagined, defined, discussed and created. And while culture conditions the colours we notice with our physical eyes, there is no aspect of our abstract conceptions of colour (those which allow us to name, compare and depict colour) on which its impact is less than profound.[8]

For colour in Greek clothing, this need not, because of the nature of the evidence, even be argued. The number of preserved textiles is so small, and the likelihood that the colours they now possess are those with which they were created, so slight, that we cannot hope to simply **see** their colour.[9] All of the other evidence, both verbal and visual, is for colour in clothing as it appeared to the eyes of the mind, preserved through cultural media. It is, therefore not evidence of chromatic reality, but, by its very nature, of chromatic effect: for the salience, not the simple existence, of colour.[10]

The concept of salience is of great importance, not only to colour in culture, but to every aspect of our colour perception and conception. We see form and colour. Colour, which encompasses value and chroma as well as hue, is what fills in the forms we see, helps us to distinguish movement, allows us to assess relative position, three-dimensional shape, distance and texture. The structure of our eyes makes some aspects of colour perceptually salient (we see them more readily, they appear more singular).[11] Our instinctual heritage complements this by the evolutionary association of particular perceptually salient colours with danger. And our minds build on this by noting less immediate colour/information

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[5]Red, green, purple, and, white, yellow . . . blue, grey and black. cf. Irwin (1974:10, n.19) See p.26-28, 37.
[6] Colour-blindness theories: Goethe (1913:39-42) Gladstone (1858:457-99) Magnus (1877:41-2, 55-6) Weise (1888:593-605) Marty (1879:7-22) Rowe (1972:328) Irwin (1974:5-14, esp. n.19) "Recent studies of colour in Greek literature conclude ... that Greek vision was normal, but their terminology was at fault." cf. p.46-49, 56-62
[7] See p.206-213
[8] Eco (1985:157-75)
[9] Carroll (1965:9-22) Schaeffer (1943:266-77)
[10] Eco (1985:159) "the puzzle we are faced with is neither a psychological one nor an aesthetic one: it is a cultural one."
[11]Abramov (1997:89-117) cf. Jameson & D'Andrade (1997:295-319, esp.295, 301-2).

associations.[12] All these factors (and many others) conspire to ensure that some colours stand out, in the eye and mind, more than others: so that the infinite variety of the ubiquitous colour we see is reduced and ordered. What has its roots in perception and instinct is elaborated by culture and reinforced by language, to the point that we are happy enough to use eleven simple terms to discuss, define and communicate the millions of colours we see everyday.[13] Even colour in vision functions through abstraction: we recognise the 'colour' of objects although what we see are gradations of light and shade. In short, abstraction is what our minds do with colour on every level – we abstract and focus on its most salient aspects. And vision is itself the aspect of sense perception which we most commonly discuss, perceived as less individual than taste, touch or smell, so that its interaction with culture and language is most immediate.

Thus, the concept of salience is integral to any study of colour, whether that study explicitly acknowledges it or not. When such a study involves considering colour as it appears within and is communicated by culture, this concept is of critical importance. Having discussed the reasons that this thesis specifically aims to investigate the salience of colour (rather than its existence) it should now be explained what this will, and will not, involve. The first important consideration is that the collation of evidence from disparate sources does not appear to be an efficient or effective way to investigate colour in culture, even at the basic level of understanding colour-names.[14] It is, however, the most obvious way to proceed, since it seems intuitively satisfying that the accumulation of colour-names attached to objects will eventually give up the 'colour' concerned, or that accumulations of references to a particular colour will illuminate its 'meaning.'[15]

The major objections to this approach are: that it requires the researcher to pre-define the research object (on the basis of assumptions that will inevitably, since they precede the research, be based more on their own conceptions of colour and its salient aspects) and prioritise those aspects of the evidence which confirm this pre-definition. Secondly, that the use of a wide range of disparate sources devalues context, not only in terms of possible artistic choice and variation, but also of the fact that colour-words are used in both attributive and discriminatory ways, and that major differences in meaning can exist between denotative, connotative and metaphorical uses.[16] Thirdly, that this approach ignores the fact that each single colour-word has a context formed of all other words it would be possible and impossible to apply to the same subject: concentrating on the use of single terms ignores where they stand in relation to other colours, and the fact that colour-terms in language function as integrated systems, not isolated words.[17] Fourthly, and this embraces the other points, this approach assumes salience, and particularly that salience is standard across different source-contexts: that a colour which is prominent in categorisation

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[12] "Color vision is important for mating, food acquisition, recognition of dangerous predators and/or prey, communication, and extraction of various kinds of information about the environment." Zegura (1997:289)

[13] MacLaury (1999:1-37, esp. 3)

[14] See n.24

[15] "The dilemma can only be solved by reading from the cultural meaning of color to the empirical tests of discrimination, rather than the other way around." Sahlins (1975:22)

[16] See p.56-61 also Barthes (1990:27-29)

[17] See n.24 also Brenner (1982:5,28, n.10) and Kay (1999:76)

will be equally salient in representation, production, social contexts and perception. While there is one colour in Greek clothing for which this does appear to be the case ('purple') the fact that it has so far proved impossible to integrate it into an understanding of the cultural 'meaning' of colours, indicates that such parity should not be assumed.[18]

In actuality, most collation studies relating to Greek colour recognise and attempt to incorporate all these aspects, but it must be noted that this kind of study relies on the intuition of the researcher to do so. Both Maxwell-Stuart (1981) and Irwin (1974) provide excellent summaries of the intellectual issues surrounding inquiries into colour. Despite this, however, both studies proceed by the organisation of material under assumed chromatic/hue headings, as do Platnauer (1921) Lyons (1999) and Llewellyn-Jones (2000). The unsatisfactory nature of such organisation as a framework for investigation is discussed by Lucy (1997) and Brenner (1982) The latter is notable as an example of a theoretical discussion of the problems which **does** condition the overall approach to the evidence.[19] Furthermore, the pre-definition of the research object (generally the investigation of hue and hue-reference) precludes effective investigation of the complementary aspects of colour which may be of equal significance.[20] But perhaps the most fundamental criticism of this approach (as a tool for investigating colour, as opposed to literature) is that it assumes that colour exists in a meaningful form independently of the methods culture-members use to create, communicate and depict it. It assumes that there is a stable and real relationship between a colour-word and a physical colour, and that this relationship is recoverable from the extant uses of the word. Maxwell-Stuart's study of γλαυκὸς, the first of an uncompleted series, has an excellent theoretical introduction and provides a complete list of the uses of the term. Nevertheless, because it fails to include comparative information (how each author uses other colour-terms, or what other colour-terms are applied to the same objects) it cannot locate the use of this term as part of a system, definitively separate different aspects of its reference, or draw conclusions which are more than inferences from context.[21]

The first of these assumptions has been largely dealt with already. Colour does not even exist independently of vision, and we cannot see through the **eyes** of the Greeks. Again, the philosophical question need not be argued, because all the evidence is cultural, and thus a result of a conceptual, fluid relationship between cultural product (word, pigment, image) and individual visual perception.[22] As to recoverablity, even linguistic investigators do not trust the relationship between 'word' and 'thing' to

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[18] "Color signifies not through its species but only insofar as it is marked or not" Barthes (1990:173) This statement refers explicitly to clothing as a translinguistic system, but insofar as colour also constitutes such -"systems whose signification passes through the relay of language" (1990:167) - can and should be extended. Marking through verbal description indicates the significance of colour, but it does not necessarily indicate that this significance is inherent in the 'colour itself.' See p.7-8 for importance of considering the marking of colour as a pre-requisite for then considering the marking of 'particular' colours.

[19] Lucy (1997:320-346) and Brenner (1982:3-35, esp. 33)

[20] See p.31-33

[21] Maxwell-Stuart (1981) and see p.63-64

[22] "When one utters a colour term, one is not directly pointing to a state of the world (process of reference) but, on the contrary, one is connecting or correlating that term with a cultural unit or concept." Eco (1985:160)

inform them. They use multiple informants and a variety of discrete tasks (involving colour-naming, and identification, and physical mapping) to attempt to establish stable patterns of identity.[23] This we cannot do, and must recognise it. Collative studies of references are excellent evidence for patterns of word-use: not for colour.

Similarly, studies of colour which attempt to define the use and significance of a single colour without reference to its place within colour conceptions as a whole are also problematic.[24] Again, the research object has been pre-defined – one assumes that a colour category 'red' exists, and that what it encompasses is obvious. References, either literary or visual, are assumed to therefore illuminate its meaning, and to refer directly to the assumed category. Again, we can consider the extensive tasks of linguistic researchers, required even to establish the existence of a particular colour category in a specific context, never mind its 'meaning.' Further, it should be recognised that metaphorical or symbolic uses of colour are entirely dependent, not simply on the physical qualities of the colour, but on the relative cultural emphasis on those qualities, and on the 'lower-order' uses of the colour **or** its term.[25] Without these, although the colour-use may be correctly identified as metaphorical, its import cannot truly be appreciated. Levels of reference are complicated, and the temptation is to concentrate on, and attribute particular significance to, uses of the colour or term which support the particular intuitive interpretation of the researcher: arguments easily become circular, because concentration on a single term or assumed category, and on references from disparate sources, again preclude comparison.[26]

Criticism is easy, but of limited utility. This discussion so far has outlined the assumptions that are rejected by this study. The next task must be to define the assumptions that do underlie it, and how they condition its subject matter and methods. The main contention is that modern colour theory has much to offer the researcher into ancient colour. Two basic tenets are held: that the relationship between visual perception of colour and chromatic response can only be investigated by **questioning of individuals** and is therefore an inappropriate subject for an investigation of ancient material.[27] Secondly, that the primary basis for verbal definition and communication of colour, as well as for colour-choices in the creation of artefacts and in depiction, is not the individual physical perception of colour, but rather its mental

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[23] MacLaury (1997:261-2) and more generally, Berlin & Kay (1969)

[24] "in color...the terms stand in meaningful relations with other terms, and it is by the relations between terms within the global system that the character of objective reference is sedimented... the concrete attributes thus singled out by the semantic variation of terms then function also as *signifiers*...not simply as the *signifieds* of the terms." Sahlins (1975:1)

[25] A "first, literal message serves as a support for a second meaning, of a generally affective or ideological order" Barthes (1990:28) Seuil (1957:213)

[26] Purple, as above p.5, is exceptional because it is so defined and discussed **in the source material**. A good example of an otherwise informative and innovative discussion which is let down by failure to consider the subject in the full context of colour [esp. of colour language, since the term discussed is certainly a secondary term, which does not refer to either the 'basic' categories 'yellow' or 'red' or to their conflation, see below, p.59-61 and Casson (1997:224-239)] is Llewellyn-Jones (2000:Ch.9, esp. n.76). In this instance, while the conflation of red and yellow hues is not supported by philosophical or linguistic evidence (and as a basic aspect of categorisation, see p.49-53, almost certainly would be) the metaphorical argument could equally well have been made in terms of chroma and value as symbolic aspects linking blood and this colour of clothing.

categorisation (which is, at least in part, culturally conditioned) and is an appropriate subject for investigation.[28] To these may be added a third – that colour, like clothing, is a translinguistic system – that is, that while colour can function as a simple sign, much, if not most of its significance is attributed to it through processes of verbal discussion and definition.[29] If we could see Greek clothing in use, it would be possible to discern some patterns of meaning (of use and significance) but these would not be complete in the absence of linguistic definitions and attributions of meaning. And since we cannot, since we have **no direct** access to the actual patterns of use and significance, it is on the cultural, communicatory, aspects that investigation should consciously focus.

And the impact of these assumptions: this thesis is not a study of the actual colours of actual clothing. It is a study of the cultural categorisation, salience, and attribution of meaning to colour in a class of material referents which themselves have particular social significance. As such, its focus on representational evidence of various kinds is not (only) due to the lack of other, physical, evidence, and it does not attempt to use the former as substitute for the latter. Representational evidence **is** evidence for the cultural categorisation and salience of colour, **not** for **colours**; thus the title.

The importance of the concept of salience in the way that humans generally respond to colour as an aspect of perception has been discussed above. All colour that can be defined, discussed or depicted is, by definition, salient in some way. However, there are specific aspects of this concept that are particularly relevant to colour in clothing. Since such colour is always created, salience in production must be considered (some colour is easy to produce in textiles, some difficult; some is common, some exotic).[30] And since clothing has social significance as a medium of self- and group-construction and definition, its colour may have particular salience in terms of social contexts.[31] Both these aspects relate to colour and clothing in use, and therefore, it is crucial to recognise in considering them that their appearance in the evidence is dependent on other aspects of salience – particularly language as it represents the categorisation of colour.[32] In short, different contexts (either of original use, or of extant source material) prioritise different aspects of the practical and conceptual salience of colour, and do so to variable, but interacting, extents.

Such interaction is one reason that this thesis, to a certain degree, takes the form of 'case studies.' There are others. Primarily that, although the disadvantages of collating evidence from disparate sources have been discussed above, evidence for colour in clothing **is** scattered, and thus any investigation must take a variety of sources into account. This thesis comprises, therefore, several overall considerations of particular, restricted bodies of evidence. Each chapter considers the references to colour in clothing which are made within specific contexts, and by doing so, can consider those references, not only in terms of

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[27] See n.15 & 24 and p.41-43; p.46-49 Also Brenner (1982:17)
[28] Eco (1976:159-75) Lucy (1997:320-46)
[29] See p.46
[30] See p.206-228
[31] See especially p.256-274
[32] See especially p.52 and p.127

their particular communicative, artistic and practical contexts, but also in terms of the ranges of colour-terms and groups which **do** appear, as well as the conceptual oppositions implied by those which do **not**.

Detailed attention to context also allows specific comparisons between different types of evidence to be drawn. It allows inferences to be made about whether the salience of particular colours in clothing, in each context, should be attributed to general cultural salience, or is restricted to the social use of clothing.[33] And perhaps most importantly, given the level of assumptions inherent in studying the complex subject of colour, it means that the utility of the data presented is not dependent on the reader's agreement with the overall argument of the thesis.[34] The inferences I will draw are those that I believe to be significant and supported by the evidence: other researchers, interested in other aspects of clothing and of colour, should be able to draw their own from the same material.

This has been an important consideration in the structure and methodology of this thesis. It would have been easy enough, and perhaps more impressive, to construct a cumulative argument, in which the conclusions drawn from one aspect of the evidence were integral to the analysis of the others. Similarly, one methodological approach to the subject would have been to undertake parallel processes of collation: of Greek references to colour in clothing, and of modern commentators' conclusions on the general subject of Greek colour: and then match them up to provide conclusions based on consensus.

Despite being, on the face of it, sensible approaches to the subject, both are rejected by this thesis. They share, to a greater or lesser extent, two main disadvantages: dependence on the expertise and intuition of the researcher, and a reductionist attitude. To take the first point: were an expert of the stature of Elizabeth Irwin to undertake either type of study, underwritten by a lifetime's appreciation of Greek colour-terms, **then** its conclusions would certainly be of interest, although I have tried to emphasise above the drawbacks of the consensual approach to the study of colour.

Taking the second point: both the cumulative argument and the argument from consensus, function by reducing the complexity of the subject. Both clothing and colour, and thus particularly colour in clothing, **are** complex and multivalent. Simple answers and definite conclusions can be easily found and superficially justified. But conclusions of any kind should be the result, not the basis, of analysis, and this thesis is structured on that premise. Each chapter draws conclusions about its own evidence, and similarities and differences are noted and compared throughout. But the analysis of colour in the catalogues of dedicated clothing from Brauron is not dependent on the conclusions of the first two chapters, nor itself forms the basis for future analyses. The intent is to provide a variety of perspectives on the subject, and to maintain and acknowledge its complexity within each context. Reduction of some kind is the essence of analysis, but this thesis aims to avoid the reduction of complexity, and replace it with reduction to restricted bodies of evidence, to particular theoretical approaches, and levels of

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[33] See particularly p.58

[34] It should also be noted that the principal argument is not about the putative 'meanings' of specific 'colours' - the reader who wishes to know what red 'means' should see Gage (1993:26) – but rather about the potential and right relationships between different types of evidence. Conclusions about specific colours and qualities of colour are subsidiary, though important.

representation. When particular types of evidence, approached in specific and particular ways, produce comparable results, then consensus may be suggestive and interesting.[35]

Overall, the intent of this thesis is to give equal weight to the presence and absence of references to the colour of clothing in each type of source material. Since all clothing was coloured, it is necessary to ask not only the positive questions – 'Why was colour in clothing significant in this context?' Why were these particular colours remarked upon in this context?' – but also the negative ones – 'Why was colour in clothing apparently less significant in this context?' 'Why are some colours not remarked upon in this context?' ' The corollary of the importance of salience to both perceptual and cultural colour is a tendency to treat colour as a positive quality (as something which some things possess and others do not, like 'heat') when in fact it is a universal quality (like 'temperature'). Just as perceptually salient colours are **seen** against a background of less salient, normative colour, so culturally salient colour is only, potentially, meaningful against an assumed background of normative (or culturally neutral) colour, which therefore also requires investigation.[36]

This applies to the qualities of colour (hue, value, chroma) as much as to specific colours or colour-groups. In the English language, and in modern culture, 'colour' is often used synonymously with 'hue.' But there is good evidence to suggest that the current salience of hue is **purely** cultural.[37] In considering colour in other cultures, the assumptions that hue is the basis of colour categorisation, the primary reference of colour-terms, or the main distinction between pigments, are utterly unwarranted, except insofar as they are **proposed** by the evidence.

Detailed attention to context, and the survey of total, restricted, bodies of evidence, are approaches which this thesis also uses to allow consideration of which **qualities** of colour the evidence emphasises. Colour is never hue alone – colour is the interaction between value, chroma and hue.[38] It is true that the use of English as a metalanguage makes this aspect of colour difficult to discuss, but that is not an excuse for neglecting it: in fact, maintaining an awareness of the other qualities of colour is a valuable prophylactic against the application of anachronistic cultural assumptions to the evidence.[39]

In practical terms, the application of the theoretical approaches described here amounts to the fact that while the overarching concern and argument of this thesis is with the 'why' - why colour as an aspect of clothing, why these kinds of colour, why some described colours, not others? – the subject chapters and their methodology largely concentrate on the 'how' and 'what.' What is the communicative context of the

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[35] The corollary of this approach is that this thesis is very source-based. It does not draw heavily on the conclusions of other researchers, just as it is not, generally, particularly dependent on my own. Blame it on the Socratic method if you will, but this thesis is intended to allow the comparison of the evidence it considers to what the reader already knows about colour. It is intended to be suggestive rather than definitive, because clearly grounded suggestions seem more useful than unfounded, reductionist definitions. See p.68

[36] See especially p.67 & p.154-5, 175-6

[37] See p.53-6 and Brenner (1982:13, n.43,44) Casson (1997:224-39) Sivik (1997:289)

[38] Irwin (1974:10) summarises "**hue**...indicates position on the spectrum; **value**...measures the lightness or darkness of a hue; and **chroma**...describes the intensity of a hue." But, cf. p.53-6 and generally Lucy (1997) Sivik (1997) and Jameson & D'Andrade (1997)

[39] Lucy (1997:320-346, esp. 329)

evidence? What is the appropriate intellectual and methodological approach to investigating colour in clothing from each specific type of evidence? What colour-terms are used, in what relationship? How do they describe, denote or connote colour? How do these uses relate to the context? How can the evidence be compared? How can valid inferences be drawn from it?

This thesis has not been written to support or justify my own intuitive conclusions about colour in Greek clothing, although these certainly now exist. Nor has it been written to support a particular argument about the significance of colour, although some specific and general conclusions are drawn. Its argument concerns what can be known about colour in clothing, and it proceeds by asking this for each type of evidence, and then by comparing them. It intends to test the extent to which the impressions given by the evidence overall (collations of references, of art, the expressed views of ancient authors) can be confirmed by analysis of single bodies of evidence, and the place of colour in clothing within each of them.

The chapters, naturally, deal with information that overlaps to a certain extent. However, the particular areas of salience they consider can be defined. Salience in general colour categorisation is considered by the chapters on 'Colour Categories and Terms in Philosophy' and 'Colour Terms and Linguistic Theory' (presented first as also providing necessary background) which along with the chapters on 'Colour in the Catalogues of Dedicated Clothing from Brauron' and 'Colour in the Clothing Regulations of Religious Cults' attempt to relate this to specific conceptions of colour in clothing. By drawing together the evidence of previous chapters, these two chapters on inscriptions also consider the salience of colour in clothing in its social context. Salience in representation is a primary consideration of the 'Brauron' chapter, as well as 'Coloured Clothing in Attic Drama' and 'Coloured Clothing on White-Ground Lekythoi.' Salience in production is dealt with primarily by 'Dyeing and Colour.'

This Introduction has concentrated on conceptual issues and assumptions relating to colour, because within this thesis, clothing is taken as the simpler referent of the evidence, and because clothing itself is better, though not adequately, covered by previous scholarship.[40] This concentration is also justified by the fact that although the utility of studying colour in clothing for our understanding of **clothing** is obvious, comparable utility for the wider understanding of colour required theoretical exposition. Perhaps it should simply be stated that this thesis treats clothing as a physically and socially complex and significant aspect of Greek culture, whose study is integral to the development of better understandings of ancient society, gender, economics, art and technology, and of most of the evidence that describes them.[41] Indeed, this entire study arose from considering the importance, and therefore the

[40] Abrahams,(1908); Barker (1922);Bieber, (1928); E. Harrison (1977), (1991). 217-39; Morizot, (1974);Repond, (1931); Ridgeway (1984); J. Shaeffer (1974) Heuzey, (1922); Özgen, (1982);Brooke, (1962); Houston, (1947); Losfeld, (1991); (1994); Stewart, A. (1997); Miller, (1997); (1999); Mills, (1984); Bonfante, (1989); Fridh-Haneson, (1983); Lissarrague, (1990); Scheid & Svenbro, (1996); Stone, (1981); *et alia* - see Bibliography

[41] A good overall picture is provided by Llewellyn-Jones (2002).

implied significance, of colour in the corpus of cultic clothing regulations, which themselves confirm and illuminate the social significance of Greek dress.[42]

Although the cultic regulations formed the starting point of the research, they comprise the end point of the thesis. The reader will already be aware from the Contents pages that the central material of the thesis is inscriptional (Chapters Three and Seven) and that it appears in the middle and at the end of the exposition. This placement is necessitated by the nature of such evidence: though direct and informative, it requires context. And while in argument and the drawing of inferences, it is best to move from the specific to the general, in appreciating context, it seems better to establish reference points in the wider landscape before zooming in, to consider the background before focussing on the foreground. Thus the most basic and general aspects of colour in culture – categorisation and its representation in language – are considered first of all, and so forth.[43]

[42] See p.97-100 and especially p.256-274

[43] This thesis, as will have been evident from the Introduction, assumes a degree of familiarity with the basic concepts of colour theory and its terminology. Including an outline list of basic terms and concepts seems a most inadequate substitute for such a familiarity, particularly since the essential facts are well covered by most dictionaries. In addition, the following short articles are recommended, and provide a more succinct and expert introduction to the subject than could hope to be provided here: Sivik (1997) summarises various theories of colour; Lucy (1997) summarises the philosophical issues surrounding colour theory and research; MacLaury (1999) summarises the history of linguistic research into colour. Further, Brenner (1982) summarises in her 'Introduction' the challenges facing historical inquiries into colour in culture. While the foregoing are in no way 'required reading' for the next two chapters, this thesis is not intended as a 'colour primer.' I have done my best to strike a balance.

Chapter One: Colour Categories and Terms in Philosophy

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1.1 Preface:

Four superficial examples of colour-categorisation were introduced above, when the standard modern conceptions of the 'colours of the rainbow' and of the basic colours, were contrasted with the same information from Aristotle.[1] Their disparity was attributed to the fact that these are culturally conditioned abstractions, which indicate the operation of differing conceptual reference points and priorities. We know what these are for modern conceptions of colour: we know that **our** basic colours are the primary hues, plus black and white, and their secondary mixtures. We know that hues are produced by mixture of other hues, and that tones are produced from all of them by the addition of black or white. We know that some of these tones are considered separate colours (pink, brown, grey) others variants on the main colours (light red, dark blue etc.) We classify colours as primary or secondary, chromatic or achromatic, and are taught their names, properties and mixtures as part of our standardised primary education. If we want to be more exact, we can consult diagrams and charts which describe the colour-space.[2]

All these things are 'known,' and underlie the ways in which we imagine colours, describe and use them in our everyday lives. Green **is** a mixture of yellow and blue, despite the fact that the actual colour of most green plants (in terms of reflected light) is a combination of 'green' and 'red.' In real terms it hardly matters that most of what most of us 'know' about colour actually works (and even then to a limited extent) only for paint.[3] What is important is that we can specify, classify and describe colour in mutually intelligible ways, and communicate accurately about the colours which are culturally meaningful.

We must assume that the Greeks could also do this.[4] This chapter examines the fact that the basis of this ability in the things they 'knew' about colour, appears on almost all the above counts, to have been radically different from out own. The importance of salience, and of locating specific colours against the background of general conceptions of colour, have been discussed above as pre-conditions of the effective investigation of colour. What this chapter considers is the extent to which a picture of the Greek conception of colour - the framework within which the specific evidence for colour in clothing was created – can be established. It discusses the degree to which these texts are consistent in describing an overall conception of colour, and considers how they may best be approached to provide a usable framework within which to view other evidence.

The chapter also considers the extent to which it is necessary to do so. The theoretical justifications for such a necessity, for accepting colour-categorisation as a research object, have been discussed above. This chapter discusses the specific aspects of Greek colour-categorisation, as it is presented by the philosophers, that render this a practical necessity: their assessments of the primary colours, of the production of colours from chromatic and achromatic colours, and the idea of mixture.

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[1] p.2
[2] See Figures, p.63-64
[3] A good summary provided by De Grandis (1972: esp.17,79 etc.)

In addition to these primary purposes (and to them may be added the function of introducing in detail some of the theoretical issues concerned with the study of colour) this chapter has an additional function in terms of the thesis as a whole. The principal lacuna in the other evidence for colour in Greek clothing is information about the relationships between colours, about colour-ranges, and evidence of how Greek speakers used colour-terms in conjunction to describe them. Since these texts aim to describe colour itself, its divisions and relationships, rather than specific colours or coloured objects, and since their aim is analytical and definitive, rather than connotative or evocative, they can provide such information.[5] In addition, the appearance of ranges of terms used with discriminatory intent by single authors, means that they can also be used for linguistic control information. Future chapters evince a restricted range of terms applied to colour in clothing; this chapter provides the wider range to which they should be compared.[6]

1.2 Introduction to the Texts:

This chapter, though it deals with ancient philosophical texts concerning colour and vision, is neither a critique, nor a review, of the philosophical value or importance of the passages it examines. The nature and history of philosophy as a discipline which involves the continuous (not necessarily progressive) attempts of humanity to wrest meaning from the world - along with the fact that its earliest protagonists remain among its greatest - have tended to separate ancient philosophy from the rest of ancient literature. It is often regarded as the special preserve of philosophers and the historians of ideas. However, such separation is not total, and it must still be valid to read these texts as texts, as will be done here, without concentrating on their place in the development of philosophy and science.[7] Nor is it relevant, for the purposes of this thesis, to consider the concept of 'correctness.' As Greeks describing their own abstract conceptions of colour, these authors are by definition correct in the only way that matters here. Nevertheless, the perception that these texts describe and analyse colour 'incorrectly' is important in that it emphasises and identifies the significant differences which obtain between ancient and modern perspectives.[8]

These texts will provide both specific and general information about colour. One problem with the evidence from inscriptions, the subject of the major chapters of this thesis, is that it provides hardly any contextual information about colour, despite the inference that dedicatory and regulatory inscriptions accurately and deliberately denoted colours of clothing to their contemporary audience. Thus it is impossible, from their internal evidence alone, either to correctly apprehend and translate their terms, or to

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[4] p.56-61
[5] Section 1.2
[6] p.58
[7] Van Hoorn (1972) provides detailed summary and references, see esp. (1972:43-8 Empedocles ;49-56 Democritus; 57-65 Plato ; 74-109 Aristotle & the actuality of the diaphonous medium).
[8] p.67

consider the significance of the colours they describe.[9] Philosophical texts on colour and vision constitute a rare instance in Greek literature where it can be argued that colour terms are being used consciously and self-consciously. The references they make to colour are not evocative or creative, but aim at clarity of expression, communication and definition, for particular, specific purposes; namely the attempt to define and explain the ways in which colour could be conceptualised, divided, and described. In this, they may be contrasted with the other instances of literary colour references, and references to coloured clothing, which are discussed below in Chapters Two and Four

The philosophical texts under consideration in this chapter make little specific mention of colour in textiles.[10] However, their authors use colour-terms precisely and deliberately to convey specific information about colour (rather than to evoke it to the mind's eye or activate a culturally conditioned chromatic response). It seems appropriate, therefore, to look at them separately from other literary evidence, and in particular to do so before discussing Greek colour-terms as a linguistic phenomenon.

This relates to the general reason for considering how the Greek philosophers talked about colour. It is clear that the colour of clothing cannot be considered in complete isolation from wider Greek conceptions of colour. Certainly the evidence which remains to us, being primarily literary, cannot be used without reference to such conceptions as they are expressed by colour-terms.[11] The difficulties surrounding the translation and classification of Greek colour-terms will be considered in specific relation to clothing in the next chapter. Here, it is enough to emphasise that, whereas for many cultures, colour-terms provide the main, singular, avenue for investigating the conception of colour, we are fortunate to possess a significant body of Greek philosophical writing about the 'abstract' concept of colour. Such evidence can no more be ignored in a discussion of Greek colour than can the modern hypotheses of linguists about the operation of colour categorisations within culture and their expression through language (p.46-49).

Nevertheless, it is one thing to justify an enterprise, and quite another to bring it to fruition. For the purposes of this investigation, I am seeking examples for comparison and contrast; introducing (rather than defining, an enterprise that would be positively hubristic) the wider context of the Greek conception of colour as a background to the material colour of clothing. Therefore, this chapter will look at a restricted group of texts: the colour mixture theories of Democritus (as relayed by Theophrastus, *De Sensu* 73-9) and of Plato (*Timaeus* 67a-c) along with the expositions of Aristotle (primarily *De Sensu* 442a18-28) and the Aristotelian *On Colours* (the fullest integrated discussion of colour).

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[9] See Ch.2 & 4 respectively

[10] Exceptions being Aristotle's *'Meteorologica'* 375a20-29 and the *On Colours* 794a22 and 797a 5ff. The appearance of dyeing processes as a philosophical paradigm for colour production and change is notable. We now tend to see painting (in which cause, effect and human agency are relatively obvious) as paradigmatic of colour change, but the aspects of dyeing emphasised in the latter passage are the variety of colours passed through in order to achieve the final result, in a process which is likened to ripening.

[11] Both colour and clothing are 'translinguistic systems' of 'extreme ambiguity' as characterised by Barthes (1990:167).

Since my interest is in these theories as instances of Greek **authors** attempting to describe the phenomenon of colour as they saw it, I shall not engage with them on a philosophical level. Instead, discussion will be focused on two particular aspects of these texts. The first is their use of specific colour-terms, the second the way in which these texts may reveal the underlying Greek conceptualisation of the colour-space. It many not be possible to recover a systematic understanding of such a conception, but it can be pointed out how we might discern traces of its structure. Discussion of the concept of 'mixture' as it is applied to colour and value by these authors will be an important aspect. One of the major obstacles to understanding Greek colour-terms is uncertainty as to whether they refer primarily to hues, as do English colour-terms, or if they are more (or equally) concerned with the other components of chromatic effect.[12] Obviously, this question is of fundamental importance to an understanding of the clothing regulations and the descriptions in the catalogues, and indeed, to any aspect of coloured clothing. By examining the way in which colour was discussed in the abstract, it should be possible to deepen appreciation of how it was viewed in the concrete.

One of the most distinctive features of these philosophical accounts of colour is the use of a relatively wide variety of colour terms by each of the authors. [13] Of course, the specific terms are all attested from other contexts. Here, however, where they are used together by each author, **we can be sure that they stand in relation to one another**. I intend to make use of this relation as a context for the single terms that my research has encountered in other sources. It is significant because the function of colour terms within language is not simply to **identify** colours, but to **discriminate** between them. Contemporary theories of colour language, discussed further below, have recently tended to emphasise this discriminatory function and its importance for the 'emergence' of colour categories.[14]

In these philosophical texts then, we have rare examples of the use of multiple terms by single authors in single instances.[15] It can be said with confidence that these uses of the terms have both identificatory and discriminatory intent. Not only is it probable that the individual terms have been used with some deliberation, but also that they have been chosen with consideration of their inter-relationships, so that these passages provide information about 'ranges' of colour. I am hesitant to use the term 'spectra' here, although it is certainly the modern equivalent of what I mean by 'ranges,' because none of the 'ranges' described by these authors fits the modern connotations of the term (the specific range of **hues** produced by the refraction of white light). It should be emphasised however that this in itself does not constitute a problem. The fact that these ancient descriptions of colour ranges do not conform to the modern paradigm does not imply that they are not conceptual orderings of colour. Nor does the fact that their internal relationships perplex the modern reader excuse us from recognising that they must, in some way, faithfully represent the ancient conception of colour. Personally, I require more compelling evidence

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[12] See for instance, Casson (1997:224-39) and p.31

[13] See table, p.34

[14] MacLaury (1997:261-82) and below, p.41-49, 59-61

[15] Important because within the context of single use, the author must have explicitly considered the relationships between the terms and colours he uses.

than my own failure of comprehension before venturing to condemn the accuracy of Democritus, Plato or Aristotle.

However, it must be admitted that on the surface at least, these accounts of colour mixture are so far from our own experience as to invite such condemnation. One way to mitigate this has been to ascribe the 'inconsistencies' of these accounts to deficient understanding of the then more arcane art of pigment mixture.[16] The venerable authorities are therefore not wrong about colour, but only about paint. I cannot subscribe to this view for three principal reasons. In the first place, it seems more probable that the failure of understanding is our own. In the second place, the accounts of Plato and the *'On Colours'* both state explicitly that they are not discussing pigmentary mixture.[17] Democritus' theories of colour are necessarily somewhat physical, given his emphasis on the atomic basis of perception, but this can hardly be equated with pigmentary mixture as though colour were a special case among his theories. Aristotle, in his whole conception of the process of vision, centres on the actions of light and the diaphonous medium, and is the most consistently and obviously abstract.[18] In the third place, all the passages I am discussing form parts of their authors' theories about vision and colour as an aspect of sense perception. The philosophers need no more be considered artists' colourmen when they talk about colour, than perfumiers when they discuss odour, or chefs when they consider taste.

In short, it seems that these philosophical discussions of colour are (as they claim to be) genuine attempts to talk about 'colour' as it is perceived by the senses, and that the relationships they describe made sense to the authors and to their contemporary audience. This is not to say that the subject was not, then as now, a complex and difficult one to tackle. Nor is it to claim that the terms used in these various attempts were 'genuine abstract terms.' I agree with Rowe: "Plato's account does little to alter our general picture of Greek colour-vocabulary at this period. The standard way of expressing colours seems still to be by reference to particular objects . . . Undoubtedly there is progress towards the development of an abstract colour terminology: but the progress is slow."[19] I do claim (with a degree of certainty that cannot frequently be claimed for Greek 'colour' terms) that in the context of the passages discussed in this chapter, the terms are used to denote colour.[20] It seems possible to be relatively sure that the terms in these passages (even when not abstract in and of themselves) are being used in an abstract way to refer to colour as an abstract quality.

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[16] Keuls (1978:66, 70) Bruno (1977:73-86, esp.77) Pollitt (1974:111) Bertrand (1893:132ff)
[17] Plato *Timaeus* 68a-c, Ps-Arist. *De Col.* 792b 17-21
[18] See p.26-28
[19] Rowe (1972:344) I am unsure of the appropinquity of the term 'progress' here, and generally in this article. See p.46-49 for references to the usefulness of an evolutionary perspective on colour-terms in language.
[20] See Introduction for discussion of 'colour.'

1.3 'Mixture' in these Philosophical Texts on Colour:

Before moving on to discussion of the passages in detail, it should be noted that the idea of 'mixture' is one of the principal conceptual difficulties which they present.[21] That 'white' and 'black' and 'red' make 'purple,' provokes automatic objection. Commentators on colour terms have pointed to the emphasis of the Greek language on light and dark, or 'value,' in an attempt to resolve such problems.[22] Others, who have made use of these passages to illuminate ancient painting, have attempted (with some success) to rationalise the accounts of mixtures by suggesting that black, both conceptually and practically, was seen to lighten to blue.[23]

But still, it is the idea of 'mixture' which dominates. There are currently two, contrasting, technical, definitions of the idea of mixture as it applies to colour: pigmentary mixture, with its primaries and 'laws,' and optical mixture, with its respective (and contrasting) rules; both are physical and scientific. They are empirically based and produce predictable and repeatable results.[24] The Munsell Color System, the most widely accepted modern systematic categorisation of colour, is based on both of them.[25] However, there are major objections to be raised against regarding either of these systematisations of mixture as universally applicable or relevant. When we think 'mixture' they spring to mind, yet neither of these paradigms can be consistently applied to these passages, and they are undoubtedly anachronistic.[26]

One way to resolve this paradox is to accept that the Greek conception of 'mixture' was different to the modern.[27] Our own conceptualisation of the colour-space, though bound up, particularly in its formal origins, with empirical ideas of mixture, is not reducible to them.[28] It is possible, for instance, to substitute the idea 'between' for that of 'mixture.'[29] The idea that purple is 'between' white and red and black requires less mental agility.

I would suggest that these passages should be seen as descriptions of the relationships of colours within the colour space – that is, as abstracted relationships, whose properties ultimately derive from, and relate to, those of their physical counterparts, but are not reducible to them. Thus, the constant recurrence of the idea of mixture becomes less problematic; the interaction of abstractions is not governed by empirical laws, but it is revealing of cultural constructs.

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[21] Keuls (1978:69) "it is not possible to make any sense out of Plato's scheme of mixtures" I do not agree.
[22] Rowe (1972) Lyons (1999) etc. & below, p. 21 χλωρός
[23] See n.16 and Chapter Five, but cf. my comments on pigmentary mixture as a basis for these passages, above, n.15
[24] Van Hoorn on empirical testing of Democritus (1972:55) and Siegel (1959:154)
[25] "The definitions of hue, value and chroma are unambiguously established by the operations involved in constructing the system by means of additive mixtures on a Maxwell disk." Taylor & Hardy (1940) in Sivik, (1997:167)
[26] See n.25 Optical mixture can be visually deduced, but absolute definition of its primaries is only necessary for the production of complex, standardised images (printing and televison). See p.128ff for pigments.
[27] I am not arguing that words such as κεραννύμι are mistranslated, but that the concept which informed them, especially in relation to colour, was less empirically based and formalized. See Aristotle, below p.26
[28] Irwin (1974:10-11) summarises the Munsell system, but cf. Sivik (1997) and Jameson & D'Andrade (1997) for more complex and critical views.

Can such a substitution be justified? The fact that, in the modern era, we can trace the development of the association between empirical experiments with both types of colour mixture and the formal systematisation of colour categorisation is one justification.[30] The existence of an alternative modern system of colour categorisation and description, the Swedish 'Natural Color System,' (NCS) which is both perceptually orientated, and closer to the Greek view displayed in these passages, is particularly persuasive.[31] This system rejects the use of the physical properties of colour (reflection and refraction) to standardise communication about, colour.[32] Instead, the 'Natural Color System' is based on the **imaginative** assessment of physical colours into their component hues **and** admixtures of black and white.[33] Such a system runs contrary to modern formal conceptualisation of colour in many respects, especially in that it utilises both black and white as positive qualities.[34] However, its rationale and *raison d'etre* are that it actually accords more fully with human colour perception, and is therefore easier to utilise outside the laboratory. [35] I would argue that since the 'Natural Color System' colour-space is articulated by a concept of mixture, which is both abstract and distinct from either optical or pigmentary mixture, a similar paradigm may prove useful in considering the mixtures described by the philosophers.

Assessment of colour under the Munsell System is physical: the reflective and refractive properties of the samples are measured and standardised, and the user assesses similarity under standardised light conditions. The conceptual process of using the NCS is more complex, requiring the user to 'place' the colour in question with regard to conceptual reference points – how much like red, how much like white and how much like black is it?[36]

This does not seem an unreasonable basis from which to approach these passages, in which the authors themselves generally begin by defining their reference points (the simple colours). Subsequent descriptions of 'mixtures' can be seen as asserting 'likeness:' purple partakes of the qualities of black, red, and white. But most significantly from the point of view of categorisation, these descriptions also assert 'difference:' πορφυρεοῦς does **not** partake of the qualities of χλωρὸς. And further, they assert **separation**: purple is not red, or white, or black, nor any of the other colours which result from different 'mixtures.'

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[29] Jameson & D'Andrade (1997:316) also p.53-9, Fig.3-4, p.64 & Aristotle *'De Sens'*442a26, p.26ff
[30] De Grandis (1986:28, 43-52) Sivik (1997:164-80)
[31] Sivik (1997:173-93)
[32] The basis of the Munsell system, see n. 25, 28
[33] Sivik (1997:178-80)
[34] Physically, a black colour is the result of the absence of reflected light, and therefore a negative quality. But conceptually, this is generally irrelevant in everyday thought and language. We believe it to be a colour, and act and speak accordingly.
[35] Sivik (1997:181-3)
[36] See Fig. 3 & 4, p.64

1.4 Translation of the Texts:

I have included translations below. However, as the table on p.34 makes clear (given the variation in the English terms used, and the use of 'non-basic' English terms) despite the skill of the translators, there are major difficulties with translating the colour terms used in these passages. Since this is the case here, where a range of colours and their relationships are being described by single authors, the implications of such difficulties for apprehending the meaning of terms in more restricted contexts becomes abundantly clear.

I should confess that these difficulties tempted me to simply bypass the issue of translation, by using only the Greek terms throughout the thesis. However, while a justifiable course of action in the context of this specific piece of research, it seemed to me to have at least three adverse consequences. It would mean ignoring the relationship between colour in clothing and colour in culture, which is certain to be a major factor in the potential significance of colour. It would make it much more difficult for other researchers to make use of this research, and would essentially preclude comparisons between evidence about dyeing and from painting (where the physical colours concerned are apparent) and evidence from literature and inscriptions. More generally, it would mean discarding the potential utility, for the wider understanding of Greek colour, of studying colour in a particular class of material referents. The discussion which follows attempts to define an understanding of the Greek colour space, and therefore the terms which describe it, in order to avoid these consequences.

Even a superficial reading of these passages makes it clear the problem of translating terms is minor in comparison to that of understanding their relationships, a comparison which would be more comforting without the conviction that the two are integrally related. Even the most generous translation is incapable of bringing these accounts of colour mixture into accord with our own. At the same time however, it is equally apparent that these accounts display both internal consistency and significant similarities.[37]

[37] See tables, p.34 & p.39 The translations used have not been chosen for their special attention to colour, but because they are standard (mostly Loeb) and representative of the general approach to colour-terms in translating philosophy.

2.1 Democritus (Theophrastus *De Sensu* 73-79, trans. Stratton, 1917)

In many ways this is the least difficult of the passages. The simple colours are a mixture of what would now be termed chromatic (ἐρυθρός, χλωρός) and achromatic (λευκός, μέλας). The conception of the atomic basis of colour is conceptually simpler than Plato's varying species of fire, and the description of the components of colour is detailed and contains much helpful information (i.e. 77) which helps us imagine what is meant. The chromatic colours in the primaries with white (which is specifically described as having the effect of adding "brilliance and lustre") and black, mean that simply by assuming that black is chromatic (encompassing the dark tones of the cool colours, especially blue) the derivations can be followed relatively easily.[38] It is notable that at 78 a 'darkness expelling' effect is explicitly ascribed to χλωρὸς – in other words, that like white, it functions as a 'brightener' in mixtures, though apparently with more of an impact on hue.

73 τῶν δὲ **χρωμάτων** ἁπλᾶ μὲν λέγει τέτταρα. **λευκὸν** μὲν οὖν εἶναι τὸ λεῖον.

The simple colours, he says, are four. What is smooth is white. *[The remainder of 73 concerns the atomic shape of white, which, though interesting, is not directly relevant.]*

74 τὸ δὲ μέλαν ἐκ τῶν ἐναντίων, ἐκ τραχέων καὶ σκαληνῶν καὶ ἀνομοίων·

Black is composed of figures the very opposite <to those of white> - figures rough, irregular, and differing from one another. [The remainder of 74 likewise for black.]

75 ἐρυθρὸν δ' ἐξ οἵωνπερ καὶ τὸ θερμόν, πλὴν ἐκ μειζόνων. . . . .

. . . τὸ δὲ χλωρὸν ἐκ τοῦ στερεοῦ καὶ τοῦ κενοῦ συνεστάναι μεικτὸν ἐξ ἀμφοῖν, τῇ θέσει δὲ καὶ τάξει <διαλλάτειν> αὐτῶν τὴν χρόαν.

Red is composed of figures such as enter into heat, save that those of red are larger. . . . .

. . .Green is composed of both the solid and the void, - the hue varying with the position and order of these constituents.

76 τὰ μὲν οὖν ἁπλᾶ χρώματα τούτοις κεχρῆσθαι τοῖς σχήμασιν · ἕκαστον δὲ καθαρώτερον, ὅσῳ ἂν ἐξ ἀμιγεστέρων ᾖ. τὰ δὲ ἄλλα κατὰ τὴν μῖξιν.

Such are the figures which the simple colours possess; and each of these colours is the purer the less the admixture of other figures. The other colours are derived from these by mixture.

οἷον τὸ μὲν χρυσοειδὲς καὶ τὸ τοῦ χαλκοῦ καὶ πᾶν τὸ τοιοῦτον ἐκ τοῦ λευκοῦ καὶ τοῦ ἐρυθροῦ· τὸ μὲν γὰρ λαμπρὸν ἔχειν ἐκ τοῦ λευκοῦ, τὸ δὲ ὑπέρυθρον ἀπὸ τοῦ ἐρυθροῦ · πίπτειν γὰρ εἰς τὰ κενὰ τοῦ λευκοῦ τῇ μίξει τὸ ἐρυθρόν.

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[38] See p.48-50 and Van Hoorn (1972:69-70) Beare (1906:23-37) Prantl (1849:48-58)

Golden and copper-colour and all such tones, for instance, come from white and red, their brilliance being derived from the white, their ruddiness from the red component; for in combination, the red sinks into the empty spaces of the white.

ἐὰν δὲ προστεθῇ τούτοις τὸ χλωρόν, γίνεσθαι τὸ κάλλιστον χρῶμα, δεῖν δὲ μικρὰς τοῦ χλωροῦ τὰς συγκρίσεις εἶναι · μεγάλας γὰρ οὐχ οἷόν τε συγκειμένων οὕτω τοῦ λευκοῦ καὶ τοῦ ἐρυθροῦ. διαφόρους δὲ ἔσεσθαι τὰς χρόας τῷ πλέον καὶ ἔλαττον λαμβάνειν.

Now if green be added to white and red, there results the most beautiful colour; but the green component must be small, for any large admixture would not comport with the union of white with red. The tint will vary according to the amount <of green> that is introduced.

77 τὸ δὲ πορφυροῦν ἐκ λευκοῦ καὶ μέλανος καὶ ἐρυθροῦ, πλείστην μὲν μοῖραν ἔχοντος τοῦ ἐρυθροῦ, μικρὰν δὲ τοῦ μέλανος, μέσην δὲ τοῦ λευκοῦ · διὸ καὶ ἡδὺ φαίνεσθαι πρὸς τὴν αἴσθησιν. ὅτι μὲν οὖν τὸ μέλαν καὶ τὸ ἐρυθρὸν αὐτῷ ἐνυπάρχει, φανερὸν εἶναι τῇ ὄψει, διότι δὲ τὸ λευκόν, τὸ λαμπρὸν καὶ διαυγὲς σημαίνειν · ταῦτα γὰρ ποιεῖν τὸ λευκόν.

Crimson[a] comes from white, black, and red, - the largest 'portion' being red, that of black small, and that of white midway; for thus it makes an appearance delightful to the sense. That black and red are present in it is patent to the eye: its brilliance and lustre testify to the presence of white; for white produces such effects.

τὴν δ' ἰσατιν ἐκ μέλανος σφόδρα καὶ χλωροῦ, πλείονα δὲ μοῖραν ἔχειν τοῦ μέλανος ·

Woad hue is composed of deep black and golden green, but with the major 'portion' black.

τὸ δὲ πράσινον ἐκ πορφυροῦ καὶ τῆς ἰσάτιδος, ἢ ἐκ χλωροῦ καὶ πορφυροειδοῦς . . . . τὸ γὰρ θεῖον εἶναι τοιοῦτον καὶ μετέχειν τοῦ λαμπροῦ.

Leek green is of crimson[b] and woad, or of golden green and purplish . . . . For sulphur colour is of this character with a dash of brilliance.

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[a] Stratton has here translated πορφυροῦν as crimson. Although this is not without justification, today crimson is undoubtedly a sub-category of red, whereas all the evidence, including this passage, points to πορφυροῦν as a distinct and distinctive colour, so that for the sake of simplicity it might be better to stick to 'purple.' See p.58, 138 for a discussion of terms and categories in translation.

[b] See note a.

τὸ δὲ κυανοῦν ἐξ ἰσάτιδος καὶ πυρώδους, σχημάτων δὲ περιφερῶν καὶ βελονοειδῶν, ὅπως τὸ στίλβον τῷ μέλανι ἐνῇ.

Indigo is a mixture of woad and fiery-red, with round figures and figures needle-shaped to give a gleam to the colour's darkness.

78 τὸ δὲ καρύινον ἐκ χλωροῦ καὶ κυανοειδοῦς· ἐὰν δὲ πλέον τοῦ χλωροῦ μειχθῇ, φλογοειδὲς γίνεσθαι· τῷ γὰρ ἀσκίῳ τὸ μελανόρων ἐξείργεσθαι.

Brown is derived from golden green and deep blue: but if more of the golden green be mixed, flame-colour is the result; for the blackness is expelled because <the golden green> is shadowless.

σχεδὸν δὲ καὶ τὸ ἐρυθρὸν τῷ λευκῷ μειχθὲν χλωρὸν ποιεῖν εὐαγὲς καὶ οὐ μέλαν. διὸ καὶ τὰ φυόμενα χλωρὰ τὸ πρῶτον εἶναι πρὸ τοῦ θερμανθῆναι καὶ διαχεῖσθαι.

And red, too, when mixed with white, gives almost a 'pure' golden green, and not a black; which accounts for the fact that plants at first are of such a green before there is a heating and dispersion. [c]

καὶ πλήθει μὲν τοσούτων ἐπιμέμνηται χρωμάτων, ἄπειρα δὲ εἶναι καὶ τὰ χρώματα καὶ τοὺς χυλοὺς κατὰ τὰς μίξεις, ἐάν τις τὰ μὲν ἀφαιρῇ τὰ δὲ προστιθῇ καὶ τῶν μὲν ἔλαττον μίσγῃ τῶν δὲ πλέον. οὐθὲν γὰρ ὅμοιον ἔσεσθαι θάτερον θατέρῳ.

This completes the tale of colours he recounts; although he holds that the colours, like the savours, are endless in number according to their combinations, - according as we remove some and 'combine' them in varying proportion. For no one of these colours would be the same as another.

79 πρῶτον μὲν οὖν τὸ πλείους ἀποδοῦναι τὰς ἀρχὰς ἔχει τινὰ ἀπορίαν· οἱ γὰρ ἄλλοι τὸ λευκὸν καὶ τὸ μέλαν, ὡς τούτων ἁπλῶν ὄντων μόνων·

But first of all, his increase of the number of primaries presents a difficulty; for the other investigators propose white and black as the only simple colours.[d]

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[c] This directly contradicts, of course, the description of green as a simple colour in 75, as well as the accounts of mixtures of white and red in 76.

[d] One would expect Theophrastus to explain what difficulty and why it arises, but no more is said of this, and the discussion moves on to problems with atomic structures.

2.2 Plato *Timaeus* 67e-68c

Plato deals with colour on several occasions, this being the main instance.[39] His accounts of mixture are clearly subordinate to the theory of vision, so that colour appears as a property of the visual process, "a kind of fire." The description of the primary colours as fires which produce blackness, whiteness and brightness, and the fact that the initial explanations make it unclear quite where red fits into the picture (though the four are subsequently used with parity) make for a disjointed account. Colour does not seem to have been problematic to Democritus and Empedocles – things **are** coloured – while Aristotle's theory of vision takes full account of the importance and action of light – we **see** colours. Plato seems to occupy a middle ground between these ideas.[40]

Plato's account is therefore the most perplexing for me, but valuable for two reasons: by separating 'brightness' from 'whiteness' it underlines the importance of this quality of colour, and although it describes almost as many mixtures as Democritus, around half of them are clearly distinguished by what we would term 'value.' Therefore, although the relationship between the 'primaries' is more difficult to conceive, the relationships between the colours they produce are relatively simple.

67e οὕτως οὖν αὐτὰ προσρητέον · τὸ μὲν διακριτικὸν τῆς ὄψεως λευκόν, τὸ δ' ἐναντίον αὐτοῦ μέλαν, τὴν δὲ ὀξυτέραν φορὰν καὶ γένους πυρὸς ἑτέρου προσπίπτουσαν . . .

These, therefore, are the names we must assign to them: that which dilates the visual stream is 'white' and the opposite thereof 'black'; and the more rapid motion being that of a different species of fire. . .

68a . . . αὐτὴν δὲ οὖσαν πῦρ ἐξ ἐναντίας ἀπαντῶσαν, καὶ τοῦ μὲν ἐκπηδῶντος πυρὸς οἷον ἀπ' ἀστραπῆς, τοῦ δ' εἰσιόντος καὶ περὶ τὸ νοτερὸν κατασβεννυμένου, παντοδαπῶν ἐν τῇ κυκήσει ταύτῃ γιγνομένων χρωμάτων,

And this moving body, being itself fire, meets it from the opposite direction; and as the one firestream is leaping out like a flash, and the other passing in and being quenched in the moisture, in the resultant mixture colours of all kinds are produced.

μαρμαρυγὰς μὲν τὸ πάθος προσείπομεν, τὸ δὲ τοῦτο ἀπεργαζόμενον λαμπρόν τε καὶ στίλβον ἐπωνομάσαμεν.

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[39] *Meno* 76d,e; *Phaedo* 110b-e; *Symp.* 211e; *Rep.* 6.500c-501c, 507d-509a, 9.588b-586c, 10.601a-602e, *Crat.*424b-425b, *Theaet.* 153d-154b, 156a-157a, 182a, b; *Phileb.*51b,d; See Gaiser (1965:173-222) Beare (1906:42-56) Prantl (1849:61-77)

[40] The dichotomy is maintained to this day, for despite a fuller scientific understanding of the role of light in colour, we continue to speak and behave as if it were a property of objects.

This sensation we term 'dazzling' and the object which causes it 'bright' or 'brilliant.'

68b τὸ δὲ τούτων αὖ μεταξὺ πυρὸς γένος, πρὸς μὲν τὸ τῶν ὀμμάτων ὑγρὸν ἀφικνούμενον καὶ κεραννύμενον αὐτῷ, στίλβον δὲ οὔ · τῇ δὲ δια τῆς νοτίδος αὐγῇ τοῦ πυρὸς μειγνυμένου . χρῶμα ἔναιμον παρασχομένῃ, τοὔνομα ἐρυθρὸν λέγομεν.

Again, when the kind of fire which is midway between these [between the kinds of fire which produce 'blackness' and 'brightness'] reaches to the liquid of the eyes and is mingled therewith, it is not brilliant but, owing to the blending of the fire's ray through the moisture, it gives off a sanguine colour, and we give it the name of 'red.'

λαμπρόν τε ἐρυθρῷ λευκῷ τε μειγνύμενον ξανθὸν γέγονεν ·

And 'bright' colour when blended with red and white becomes 'yellow.'

τὸ δὲ ὅσον μέτρον ὅσοις, οὐδ' εἴ τις εἰδείη, νοῦν ἔχει τὸ λέγειν, ὧν μήτε τινὰ ἀνάγκην μήτε τὸν εἰκότα λόγον καὶ μετρίως ἄν τις εἰπεῖν εἴη δυνατός.

But in what proportions the colours are blended it were foolish to declare, even if one knew, seeing that in such matters, one could not properly adduce any necessary ground or probable reason.

68c ἐρυθρὸν δὲ δὴ μέλανι λευκῷ τε κραθὲν ἁλουργόν · ὄρφνινον δέ, ὅταν τούτοις μεμειγμένοις καυθεῖσιν τε μᾶλλον συγκραθῇ μέλαν.

Red blended with white and black makes 'purple'; but when these colours are mixed and more completely burned, and black is blended therewith, the result is 'violet.'

πυρρὸν δὲ ξανθοῦ τε καὶ φαιοῦ κράσει γίγνεται, φαιὸν δὲ λευκοῦ τε καὶ μέλανος, τὸ δὲ ὠχρὸν λευκοῦ ξανθῷ μειγνυμένου.

'Chestnut' comes from the blending of yellow and grey, and 'grey' from white and black; and 'ochre' from white mixed with yellow.

λαμπρῷ δὲ λευκὸν συνελθὸν καὶ εἰς μέλαν κατακορὲς ἐμπεσὸν κυανοῦν χρῶμα ἀποτελεῖται, κυανοῦ δὲ λευκῷ κεραννυμένου γλαυκόν, πυρροῦ δὲ μέλανι πράσιον.

And when white is combined with 'bright' and is steeped in deep black it turns into a 'dark blue' colour; and dark blue mixed with white becomes 'light blue'; and chestnut with black becomes 'green.'

2.3 Aristotle *'De Sens'* 442a18 – 442a28 (Trans. W. L. Hett, 1958)

This is the only passage of the extensive discussion of colour in *'On the Senses'* where Aristotle speaks explicitly of specific colours and their relationship to one another. It follows a detailed discussion of the location of colour (439a6-439b.19) and of generation and mixture as they apply to colour (439b20-440b25, esp. 440b1-440b25). Colour in the *'On the Senses'* should also be seen in the context of the abstract discussion of the processes of vision, light and colour in *'On the Soul'* (418a25-419a25).

Aristotle has already introduced the concept of ratio in colour (that those which "depend on simple ratios, like the concords in music, are regarded as the most attractive, *e.g.* purple and red and a few others like them - [and are] few for the same reason that the concords are few") in the previous discussion of mixture at 439b82-440a3.[41] The account of the generation and mixture of colours, of which the discussion of ratio forms part, discusses three different paradigms. The first two are derived from the physical processes of physical and optical mixture respectively. "One possibility is that white and black particles alternate in such a way that while each by itself is invisible because of its smallness, the compound of the two is visible. This cannot appear either as white or black; but since it must have some colour, and cannot have either of these, it must evidently be some kind of mixture, *i.e.* some other kind of colour. It is thus possible to believe that there are more colours than just white or black" (439b20-28). "Another theory is that they appear through one another, as sometimes painters produce them when they lay a colour over another more vivid one" (440a7-9). However, both these paradigms are ultimately rejected, as is the idea that "mixture is only possible in the case of those things which can be divided into minimal parts" (440b4-6). Instead, Aristotle points out that there is another type of mixture, "complete fusion, which is the most natural form of mixture" (440b10-13) and it is this which should be applied to colour, while "All that we said of colours which are due to alternation or overlaying applies equally to those which are due to [this kind of] mixture." (440b21-24) The concepts of fusion and mixture are brought together in 445b3-447a12, where the divisibility of sense perceptions is discussed. Without going into too much detail, this discussion may be summarised as arguing that the perceptions of the senses are continua between contrary extremes, and that there is a difference between potential and actual perception – "the sound of [a] quarter-tone escapes us, although one can hear the whole continuous scale." (446a1-2). In short, although the continua of sense perception can potentially be divided infinitely, they are actually subject to a finite number of perceptible divisions. Thus we return to the seven colours and flavours, which we now understand to be the principal perceptible divisions on a continuum between two extremes (in the case of colour, white and black).[42]

The seven colours are simply stated, although strictly speaking what is being described, given the flexibility of attribution of 'yellow' and 'grey,' are seven categories for both colour and flavour, into

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[41] ἀλουργὸν καὶ φοινικοῦν

[42] Another significant and consistent aspect of Aristotle's attitude to light, colour and vision is summarised at 439b17-19. ὥσπερ οὖν ἐκεῖ τὸ μὲν φῶς τὸ δὲ σκότος, οὕτως ἐν τοῖς σώμασιν

which the eight named colours and flavours fall. Since the various discussions in which the list is embedded deal with the questions of interaction, mixture and division of colour, there is no need for these to be discussed with reference to specific colours.[43]

442a12 Ὥσπερ δὲ τὰ χρώματα ἐκ λευκοῦ καὶ μέλανος μίξεώς ἐστιν, οὕτως οἱ χυμοὶ ἐκ γλυκέος καὶ πικροῦ. καὶ κατὰ λόγον δὴ τῷ μᾶλλον καὶ ἧττον ἕκαστοί εἰσιν, εἴτε κατ' ἀριθμούς τινας τῆς μίξεως καὶ κινήσεως, εἴτε καὶ ἀορίστως. οἱ δὲ τὴν ἡδονὴν ποιοῦντες μιγνύμενοι, οὗτοι ἐν ἀριθμοῖς.

As colours come from a mixing of white and black, so do flavours come from a mixing of sweet and bitter. The several colours exhibit varying proportions, whether the ratio of their mixture and stimulative effect is exactly numerical or indefinite. Those which when mingled give pleasure are all in numerical ratios.

442a18 Μόνος μὲν οὖν λιπαρὸς ὁ τοῦ γλυκέος ἐστὶ χυμός, τὸ δ' ἁλμυρὸν καὶ πικρὸν σχεδὸν τὸ αὐτό, ὁ δὲ αὐστηρὸς καὶ δριμὺς καὶ στρυφνὸς καὶ ὀξὺς ἀνὰ μέσον. σχεδὸν γὰρ ἴσα καὶ τὰ τῶν χυμῶν εἴδη καὶ τὰ τῶν χρωμάτων ἐστίν. ἑπτὰ γὰρ ἀμφοτέρων εἴδη, ἄν τις τιθῇ, ὥσπερ εὔλογον, τὸ φαιὸν μέλαν τι εἶναι· λείπεται γὰρ τὸ ξανθὸν μὲν τοῦ λευκοῦ εἶναι ὥσπερ τὸ λιπαρὸν τοῦ γλυκέος, τὸ φοινικοῦν δὲ καὶ ἁλουργὸν καὶ πράσινον καὶ κυανοῦν μεταξὺ τοῦ λευκοῦ καὶ μέλανος, τὰ δ' ἄλλα μικτὰ ἐκ τούτων. καὶ ὥσπερ τὸ μέλαν στέρησις ἐν τῷ διαφανεῖ τοῦ

442a28 λευκοῦ, οὕτω τὸ ἁλμυρὸν καὶ πικρὸν τοῦ γλυκέος ἐν τῷ τροφίμῳ ὑγρῷ.

Only the flavour of the sweet is rich, and the salt is virtually the same as the bitter; between these extremes lie the harsh, the pungent, the astringent and the acid. The kinds of flavour are roughly equal in number to those of colours. There are seven of each, if, as is natural, one regards grey as a variety of black (the alternative is to class yellow with white, as rich with sweet); red, purple, green and blue are colours intermediate between white and black, and the rest are combinations of these. And just as black is a privation of white in the transparent, so the salt or bitter is a privation of the sweet in nutrient moisture.

2.4 Ps-Aristotle, [part one] *'On Colours'* (trans. Hett 1936)[44]

This section of the *'On Colours'* is the only one which can be treated from the abstract perspective. (The rest of this comprehensive account of colour mixture and change comprises self-

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ἐγγίνεται τὸ λευκὸν καὶ τὸ μέλαν. "Thus the same conditions which in air produce light and darkness in bodies produce white and black."

[43] Lloyd (1966:376-7) Beare (1906:56-92) Prantl (1849:80-159)

[44] Gottschalk (1964:59-85) Prantl (1849:80-159)

avowedly empirical descriptions of physical colour change). Four types of colour are mentioned before the concluding line above: λευκός, ξανθός, μέλας, and φλογοειδὲς or πυρός χρῶμα. These last two seem interchangeable, but it is not clear, given the statement at the start, whether they should also be seen as interchangeable with ξανθός. The description of sand would seem to argue against this, as would the fact that after the first lines, light and fire are not again referred to as ξανθά.

One obvious point is the absence of ἐρυθρὸς from the simple colours.[45] However, this may be explained by the fact that the author of the work *'On Colours'* has returned to a refined version of the two primary systems referred to by Theophrastus.[46] That is, he regards all the colours, including red and green, as being reducible to the interaction of light and darkness, although his discussion of this interaction is of considerable sophistication. Supporting this conclusion are the extensive treatment of black, and the fact that the simple colours appear to distinguish between three qualities of light – white or transparent light, sunlight or yellow light, and firelight, or reddish light – rather than three colours plus black.

791a.1 Απλᾶ τῶν χρωμάτων ἐστὶν ὅσα τοῖς στοιχείοις συνακολουθεῖ, οἷον πυρὶ καὶ ἀέρι καὶ ὕδατι καὶ γῇ. ἀὴρ μὲν γὰρ καὶ ὕδωρ καθ' ἑαυτὰ τῇ φύσει λευκά, τὸ δὲ πῦρ καὶ ὁ ἥλιος ξανθά. καὶ ἡ γῆ δ' ἐστὶ [5] φύσει λευκή, παρὰ δὲ τὴν βαφὴν πολύχρους φαίνεται.

Those colours are simple which belong to the elements, fire, air, water and earth. For air and water are naturally white in themselves, while fire and the sun are golden. The earth is also naturally white, but seems coloured because it is dyed.

791a.8 διὸ καὶ ἡ κονία ξανθὴ γίνεται, τοῦ φλογοειδοῦς καὶ μέλανος ἐπιχρώζοντος τὸ ὕδωρ.

In the same way sand becomes golden, because the fiery red and black tints the water.

791a.10 τὸ δὲ μέλαν χρῶμα συνακολουθεῖ τοῖς στοιχείοις εἰς ἄλληλα μεταβαλλόντων. τὰ δ' ἄλλα ἐκ τούτων εὐσύνοπτα τῇ μίξει κεραννυμένων ἀλλήλοις γίνεται.

The colour black belongs to the elements of things while they are undergoing a transformation of their nature.

791b.7 τὸ δὲ φῶς ὅτι πυρός ἐστι χρῶμα, δῆλον ἐκ τοῦ μηδεμίαν ἄλλην ἢ ταύτην ἔχον εὑρίσκεσθαι χρόαν, καὶ διὰ τὸ μόνον τοῦτο δι ἑαυτοῦ ὁρατὸν γίνεσθαι, τὰ δ' ἄλλα διὰ τούτου.

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[45] Both Aristotle and the author of the *'On Colours'* consistently use φοινικοῦν and not ἐρυθρός. See below, n.79 and cf. Lyons (1999:56, 59)

[46] See above, p.24 and Irwin (1974:23-24) for summary.

But that light is the colour of fire is clear from the fact that it is discovered to have no colour but this, and because it alone is visible by itself, where as all other things are visible by means of it.

792a.4 τὰ μὲν οὖν ἁπλᾶ τῶν χρωμάτων ταῦτα καὶ τοσαῦτα ἐστιν.

These then are all the simple colours.

2.5 Ps-Aristotle, [part two] 'On Colours' 792a –b:

If the work *'On Colours'* does not provide much information about the abstract conception of colour, it certainly does provide information about the relationships between colours. Examples like that of plumage, or the ripening of grapes tell us about how colours 'shade into' one another. Therefore, although it is not a good idea to regard a word like οἰνωπὸν as simply a colour term, we can nevertheless see from such passages where it stands in relation to other colour terms, particularly, given the focus on the effects of light in this text, in the context of value.[47] Such information can be used as a means of checking the relationships between colours established from the abstract examples of Democritus, Plato and Aristotle, and a brief selection of examples is given in this section.

As a last word, it seems worth quoting in translation the following passage. (793a. 3 –11) "the difference between light and shade is a quantitative difference of more and less, so that by themselves and when mixed with colours they cause change of colour, either because the colours mixed differ in quantity and strength, or because they have not the same proportions. For purple exhibits a large number of variations, and so does red and white, and each of the other colours, both in the matter of greater and less, and in their mixture with each other and their purity. It also makes a difference whether the colour mixed is bright and shining, or on the contrary dark and dull."

792a.4 Τὰ δ' ἄλλα ἐκ τούτων τῇ κράσει καὶ τῷ μᾶλλον καὶ ἧττον γιγνόμενα πολλὰς καὶ ποικίλας ποιεῖ χρωμάτων φαντασίας. κατὰ μὲν τὸ μᾶλλον καὶ ἧττον, ὥσπερ τὸ φοινικοῦν καὶ τὸ ἁλουργές, κατὰ δὲ τὴν κρᾶσιν, ὥσπερ τὸ λευκὸν καὶ τὸ μέλαν, ὅταν μιχθέντα φαιοῦ ποιήσῃ φαντασίαν.

The other colours derived from these by mixture in greater or smaller proportions make many different varieties. By greater or smaller proportions I mean such as red and purple, by mixture such as white and black, which when mixed give an appearance of grey.

792a.9 διὸ τὸ μέλαν καὶ σκιερὸν τῷ φωτὶ μιγνύμενον φοινικοῦν. τὸ γὰρ μέλαν μιγνύμενον τῷ τε τοῦ ἡλίου καὶ τὸ ἀπὸ τοῦ πυρὸς φωτὶ θεωροῦμεν ἀεὶ γιγνόμενον φοινικοῦν, καὶ τὰ μέλανα πυρωθέντα πάντα εἰς χρῶμα

792a.13 μεταβάλλοντα φοινικοῦν·

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[47] See p.53-56 and Clarke 'Bull Faced Wine and Purpling Thought: Prototype Theory and Greek Adjectives' delivered at Edinburgh, 2001

So when what is black and shady is mixed with light the result is red. For we see that when what is black is mixed with the light of the sun and fire, the result is always red, and black things when burned always change to the colour red;

792a.15 τὸ δ' ἁλουργὲς εὐανθὲς μὲν γίνεται καὶ λαμπρόν, ὅταν τῷ μετρίῳ λευκῷ καὶ σκιερῷ κραθῶσιν ἀσθενεῖς αἱ τοῦ ἡλίου αὐγαί.

Purple is gay and bright whenever the rays of the sun are a weak mixture of white and shady.

792a.25 ὃ καὶ ἐπὶ τῶν πτερωμάτων θεωρεῖται γιγνόμενον· ἐντεινόμενα γάρ πως πρὸς τὸ φῶς ἁλουργὲς ἔχει τὸ χρῶμα. ἐλάττονος δὲ τοῦ φωτὸς προσβάλλοντος ζοφερόν, ὃ καλοῦσιν ὄρφνιον· πολὺ δὲ καὶ τῷ πρώτων μέλανι κραθὲν φοινικοῦν. εὐανθὲς δ' ὂν καὶ στιλβὸν εἰς τὸ φλογοειδὲς χρῶμα μεταβάλλει. [30]

The same thing is seen to occur with plumage; for when exposed to the light it has a purple tinge. When less light strikes it, it is of that dark tint which men call grey-brown; when however the light is strong and mixed with primary black it becomes red. But when it is light and shining as well it changes to flame colour.

792b. 7 . . . οἷον ὅτι τὸ οἰνωπὸν χρῶμα γίνεται, ὅταν ἀκράτῳ τῷ μέλανι καὶ στίλβοντι κραθῶσιν αὐγαὶ ἡροειδεῖς, ὥσπερ καὶ αἱ τῶν βοτρύων ῥᾶγες· καὶ γὰρ τούτων οἰνωπὸν φαίνεται τὸ χρῶμα ἐν τῷ πεπαίνεσθαι· μελαινομένων γὰρ τὸ φοινικοῦν εἰς τὸ ἁλουργὲς μεταβάλλει. [11]

. . . for instance that the colour of dark wine occurs when sunlight rays are mixed with what is pure black and what is glittering, like the berries of the grape; for their colour is said to be wine-dark at the moment of ripening; for, when they are growing black, red changes to purple.

3.1 'Value' and Greek Colour Conceptions:

The most fundamental of the similarities between these passages is the status of black and white as the principal 'primary' colours. This status is common to all the accounts, whatever their additional primaries. The importance of black and white to these accounts of colour, and to Greek colour in general, has been noted in terms of poetic description, in analyses of colour terms, and in general by every study of Greek colour.[48] Clearly, it cannot be dismissed as a philosophical idiosyncrasy, and it would not be going beyond the evidence to claim that the primary focus of these passages is on the relationship between black, white, and colours.

[48] Irwin (1974:22-27) Rowe (1972:329,333) Lyons (1999:60-5) Lloyd (1966:16, 42-3, 46-7, 49) Kober (1927:1-36) Platnauer (1921:162) Gladstone (1858:458) etc. generally, see 'Introduction' for discussion.

There are two points that must be made about the privileged status of black and white in these passages. One is that such a status is neither inexplicable nor particularly surprising.[49] The second is that it constitutes an absolutely fundamental difference between modern conceptions of colour, and colour mixture, and their ancient counterparts. Of course, our colour-spaces take account of black and white, as can be seen from the Munsell and NCS schemata.[50] The difference is that in modern schemata, black and white interact with the spectrum of hues in such a way that, although each hue lies between black and white (conventionally expressed as the vertical axis) different **hues** are exclusively produced **by interaction with one another** (conventionally expressed by the horizontal axis).

The inclusion, indeed the prioritisation, of black and white in all these Greek colour mixtures immediately and absolutely precludes the possibility of understanding these accounts of colour in terms of the modern systems described above. The distinction expressed by vertical and horizontal axes is not drawn. The reason these 'mixtures' do not 'work' cannot simply be the inadequacy of our translations of the colour terms themselves. Modern English colour language and thought do not accommodate the idea that hues like yellow, blue, green and purple, are generated even partly by the interaction of white and black. Can there be any doubt that these passages originate in a fundamentally different conception of the colour space? Or that the investigation of such a fundamental difference is necessary?

In view of my immediate objectives in this chapter (to discuss the colour terms used by philosophy from the point of view of their relationships, to look at the differences and similarities in their use by the individual authors, and so to make a closer approach to their articulation of the Greek colour space) it is necessary to organise them somehow. The clear problems with translation, and the importance of black and white in the generation of colours, preclude organising them according to even the broadest of English hue categories.[51] Furthermore, organising the terms with reference to the modern colour **categories** to which they appear to belong in other contexts cannot provide a basis for investigating the **difference** of Greek colour categories.

3.2 The Conceptual Ordering of Colour as a Research Object

The only other option therefore seems to be to approach the problem of colour categorisation from the perspective of the relationships or mixtures themselves. That such relationships exist has been discussed above, and would seem to me to emerge clearly from the passages. Although the nature of these relationships would often seem to be impenetrable, there are ancillary relationships that can be examined. One is the order of introduction of the terms by the authors, and their appearances in the described secondary mixtures.[52] Another is the linguistic relationships between the terms, their morphology and

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[49] See p.46-49
[50] See Fig. 1-4, p.63-64
[51] Only two 'basic' English colour terms (excluding, obviously, white and black and grey) have a 'value' component to their meaning; brown and pink. Pink is unrepresented in these passages. Brown appears, but alone is hardly useful.
[52] See p.33ff

etymology. A further aspect is the role of the 'simple' colours as agents which produce specific qualities in the mixed colours.

That some relationship (between colour-terms and spaces) exists would seem to have been established by the seminal work of Berlin and Kay, which used experiments with a standard colour-space to demonstrate the existence of cross-cultural patterns in colour language.[53] Their continuing research and the tradition of enquiry it has established have certainly initiated a great deal of interdisciplinary discussion and made available considerable quantities of comparative (and comparable) information. From these can be gleaned a variety of cultural perspectives on, and examples of, the possible relationships between colour-terms and conceptions of the colour-space.[54]

The research of Berlin & Kay, offering as it does the possibility of relatively accurate cross-cultural comparisons (i.e. translations) of colour-terms, would seem on the face of it, to provide an appropriate means of organising the colour-terms supplied by these passages.[55] However, on more detailed examination, it becomes clear that not only are their methods inapplicable to ancient Greek, whose speakers cannot be questioned, or shown the Munsell array, but also that the evolutionary paradigm abstracted from their results is not unproblematically applicable to the language.[56] This may be due to practical considerations, or to a more fundamental incompatibility.[57]

4. Colour in the Texts:

This section looks at the order and structure of the colour-terms in these passages, with specific reference to their denotation of value, and then at the conceptions of the agency of the simple colours.[58] The Table below summarises the terms used across the four authors, and their various translations from the passages above. It indicates not only the variation in translations, but also which of the terms are used consistently.

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[53] And by implication aspects of colour categorisation. See Berlin & Kay (1969) Hardin & Maffi (1997) generally and for full references.

[54] See p.48ff, 54ff, 59ff for references and examples.

[55] See p.48, 55 for discussion

[56] Lyons (1999:38-75) Kay (1999:76-90) Lucy (1997:320-46) cf. Fig 1, p.63

[57] As above. My understanding of the latter's cogently argued criticisms of the paradigm is not that the distribution and relationships of colour-terms across languages are necessarily random, but that there is little justification for believing that the B&K paradigm is universal, and that the illusion of universality has been created by the research methods (primarily the imposition of the standard colour-space) which fail to take account of differences between languages and which prioritise similiarities.

[58] The next chapter will consider these results in light of some of the comparative information mentioned above, and to some of the ideas applied by the World Color Survey, to attempt to achieve some consonance between Greek colour-terms and space.

Summary Table of Terms and Translations

Greek Term	Trans. in Dem.	Trans. in Plato	Trans. in Arist.	Trans. in Ps-Arist	B[a]
ἀλουργὸς	-	purple	purple	purple	*
ἀκράτῳ μέλανι	-	-	-	pure black	
γλαυκὸς	-	light blue	-	-	
εὐανθὲς	-	-	-	gay / light	
ἐρυθρὸς	red	red	-	-	*
ἰσάτις	woad	-	-	-	
καρύινον	brown	-	-	-	
κυανοειδοῦς	deep blue	-	-	-	
κυανοῦν	indigo	-	blue	-	
κυανοῦν χρῶμα	-	dark blue colour	-	-	
λαμπρὸν	brilliance	bright	-	bright	*
λευκὸς	white	white	white	white	*
μέλας	black	black	black	black	*
μελαινομένων	-	-	-	growing black	
μέλαν κατακορὲς	-	deep black	-	-	
τὸ μέλαν χρῶμα	-	-	-	the colour black	
ξανθὸς	-	yellow	yellow	golden	*
οἰνωπὸν	-	-	-	wine-dark	
ὄρφινον	-	violet	-	grey-brown	
πορφυροῦν	crimson	-	-	-	
πορφυροειδοῦς	purplish	-	-	-	
πράσινον	leek-green	green	green	-	*
πρώτῳ μέλανι	-	-	-	primary black	
τὸ πυρός χρῶμα	-	-	-	the colour of fire	
πυρρὸν	-	chestnut	-	-	
πυρώδους	fiery-red	-	-	-	
στίλβον	gleam	brilliant	-	shining	*
στίλβοντι	-	-	-	glittering	
ὑπέρυθρον	ruddiness	-	-	-	
φαιοῦ	-	grey	grey	grey	*
φλογοειδοῦς	flame-colour	-	-	fiery-red / flame-colour	
φοινικοῦν	-	-	red	red	*
χαλκου	copper-colour	-	-	-	
χλωρὸς	green / golden-green	-	-	-	
χρυσοειδὲς	golden	-	-	-	
χρῶμα ἔναιμον	-	sanguine colour	-	-	
ὠχρὸν	-	ochre	-	-	

[a] Basic terms?

4.1 Colour Terms in Democritus:

The colour terms in Democritus' account are introduced in this order: λευκός, μέλάς, ἐρυθρόν, χλωρόν, (simple colours) χρυσοειδές and χαλκοῦ, πορφυροῦν, ἰσάτιν, πράσινον, πορφυροειδοῦς, κυανοῦν, πυρωδοῦς, καρύινον, κυανοειδοῦς, φλογοειδές. Of these terms, only the first four are what is generally termed 'basic.' The others are all derived from objects, respectively; gold, bronze, murex, woad, leek, *kuanos*, fire, nuts, flames.[59] These objects come from two classes; substances used to create colour, as murex, woad, and possibly nuts; and substances which are distinctively coloured, as gold and bronze, *kuanos* (probably either Egyptian frit, blue gemstone or enamel, or applied to all three), the leek, fire and flames. Although it is certainly possible to deduce some of the characteristics of what is being described from these terms – gold and bronze are metallic or reflective, fire and flames generally bright and 'warm' in colour, or radiant – it is suspect to assume that their hue connotations are those which we would tend to apply to them: there are many colours of gold, and more colours in fire, than yellow and red. This list also includes two types of derived terms, those taking the neuter form of adjectives derived from the noun, and those with the suffix –ειδες (πυρωδοῦς being a contraction of this form).

Turning to the relationships between these colours, they can be divided again. The next level up from the simple colours are those derived from the mixture of two simple colours. These are χρυσοειδές, from λευκὸς and ἐρυθρός, and ἰσατιν, from μέλας and χλωρός.[60] The next layer are mixtures of three simple colours, and here we have τὸ καλλίστον χρῶμα from ἐρυθρόν, λευκόν, and χλωρόν, and πορφυροῦν from ἐρυθρόν, λευκόν, and μέλαν. So far, these mixtures are relatively simple, but the higher levels of mixture are more complicated, and there is no point in reiterating Democritus' accounts. What **can** be done is to note that they can be reduced to the simple colours. It is clear from the supplementary descriptions of the results of mixtures that the interaction of the simple colours produces not only different hues, but all the different characteristics of colour. The mixture which gives πράσινον is of all four primaries, while the next introduces a previously unexplained term which has not been derived from the simple colours, πυρώδος. It is possible that this should be understood as a term for red, and equated with ἐρυθρός. In the light of the use of πυρὸς χρῶμα in *'On Colours'* however, it might be more accurately suggested that the term also has brightness connotations not present in ἐρυθρὸς.[61] The last three terms in the account are related by the relative importance of χλωρὸς as a component, and therefore, by increasing brightness. Perhaps the main conclusion about the relationships of complexity between these colours is that, just as the simple colours have the most basic

[59] s.v. LSJ and p.229 below
[60] n.b. Constituting 'yellow' and 'blue' categories? See p.48ff
[61] See table, p.34

and easily understood terms, and are widely accepted as being the most salient, so we should probably see this salience diminishing with complexity.[62]

4.2 'Value' in Democritus:

Although the mixtures this passage describes are certainly complex, they are not impossible to imagine. Section 3 above has dismissed organising the colours by hue. Instead, what emerges, both from the 'mixtures' themselves, and the additional descriptions that illuminate them, is the importance of the lightness/brightness of a colour or its darkness. In modern colour systems, this is usually referred to as 'value' and pictorially expressed on the vertical axis as a progressive lightening towards white.[63] Although in physical terms this is understood to be a function of reflected light, in practice, few of the perceptual qualities of light are addressed by such systems.[64] The different attitude of the Greeks is exemplified by Plato, whose basic colours are white, black, red, and **bright.** Democritus specifically says that the admixture of white results in brilliance. (This is most significant, from the point of view of textile coloration, in the description of πορφυροῦν, where the presence of black and red are 'apparent to the eye' while that of white is inferred from its bright appearance.) It is indicated that colours can be both 'dark' and 'gleaming.' We can see that ἰσάτιν is a dark colour ('the major portion black') and that the distinctions between κυανοῦν, καρύινον, and φλογοειδὲς are ones of brightness, even though the agent in this case is χλωρός. Perhaps, then, it is possible to divide these colours relatively according to their brightness and darkness. There is no positive statement that red has a similar effect to white or χλωρός, and the fact that when brightening in conjunction with some kind of reddening seems to be meant, πυρώδος is used instead would seem to support this. I would suggest that the role of the simple colours in these mixtures is as agents, whose inclusion, rather than having a simple chromatic impact on the hue of the mixture, also imparts other aspects of colour, such as lightness, darkness, or brightness.

Under dark colours would come μέλας, and ἰσάτιν. Under bright colours come λευκός, χλωρός, τὸ καλλίστον χρῶμα, χρυσοδειδὲς, πυρώδους and φλογοειδές – the first two not only being bright, but imparting brightness (as well as 'whiteness' and 'greenness') the second two being classified as such not only on the basis of their component simple colours, but also the physical referents of the terms. Intermediate colours would be ἐρυθρός, πορφυποῦν, πράσινον, καρυίνον and κυανοῦν (because of the 'gleam to this colour's darkness') – I have already argued above that 'red' is the most chromatic of these simple colours and that this denotation eclipses its value significance; in the other

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[62] Saliency of terms might also be indicated by position in the passage (which is why the orders are reiterated) with the more commonplace or recognised colours being described first, since the passages themselves do not strictly progress from simpler to more complex mixes.

[63] It is difficult in practice to define the difference between these two terms – 'brightness' in the sense of intense colour is chroma, rather than value. See Fig.2-3, p.63-64

[64] In common English parlance, only white may be dazzling. Gleaming, and similar terms, are not now considered as colour terms. Casson (1997:224-39; 1994:5-22) Casson & Gardner (1992:395-99) MacLaury (1992:137-87)

examples of this class, we can see a balance between bright/light and dark components. The intermediate colours should also be seen as being the most chromatic, and those for which hue was most important to their meaning. However, to have any validity as a hypothetical colour categorization, such a division would have to prove applicable more or less across the board.[65]

4.3 Colour Terms and Value in Plato:

When it comes to Plato, we find a slightly more restricted range of terms: λευκός, μέλας, λαμπρόν or στίλβον, χρῶμα ἔναιμον or ἐρυθρόν, (simple colours) ξανθόν, ἀλουργόν, ὄρφνινον, πυρρόν, φαιόν, ὠχρόν, κυανοῦν χρῶμα, γλαυκόν and πράσιον. This list is not so easily divided between basic and non-basic terms, nor are there any –ειδες terms, the phrase χρῶμα . . . being preferred.[66] Considering the complexity of the colours, λευκός, μέλας, λαμπρὸν and ἐρυθρὸς are the basics. Mixtures which are described in terms of these can be subdivided into: φαιὸν (black and white) κυανοῦν (φαιὸν with the addition of λαμπρὸν); ξανθὸν (λευκός, ἐρυθρὸς and λαμπρόν); ἀλουργὸν (μέλας, λευκὸς and ἐρυθρὸς) and ὄρφνινον (ἀλουργὸν with the addition of more black). ὠχρὸν and γλαυκὸν are derived from ξανθὸν and κυανοῦν respectively by the addition of white. The more complex compositions of πυρρὸν and πράσιον nevertheless stick to the four basic constituents.

What the above consideration of the increasing complexity of the mixtures perhaps makes more clear than the passage itself, is that the division between bright and dark colours is even more apparent in Plato. Not only does his account emphasise the importance of brightness by distinguishing it from white, something which incidentally makes attempting to order his descriptions by hue even more difficult, but the colours stand in a clear tonal relationship to one another. Colours are distinguished from one another by the relative proportion of whiteness or blackness they contain, and by the presence of absence of brightness. Under dark colours, we have μέλας and ὄρφνινον. Under light/bright colours we have λαμπρόν, λευκόν, ξανθόν, ὠχρόν, γλαυκὸν and πυρρόν. Under intermediate colours would be ἐρυθρόν, ἀλουργόν, φαιόν, κυανοῦν and πράσιον.

4.4 Colour Terms and Value in Aristotle:

As has been noted above in the commentary, Aristotle simply states his seven colour categories, as categories, and does not attempt to describe subsidiary colours as the result of mixtures. However, the wider discussion referenced above makes it abundantly clear that he regarded colours as the result of interaction between white and black, light and dark. Thus we find λευκός, [ξανθός], φοινικοῦν, ἀλουργόν, πράσινον, κυανοῦν, [φαιόν], μέλαν - white, [yellow], red, purple, green, blue, [grey], black, already divided into light, intermediate, and dark colours. In terms of the value reference of terms

[65] See table, p.39
[66] For discussion of definitions, see p.58, 138

other than λευκὸς and μέλας, the linking of ξανθὸς and φαιὸν with white and black respectively, is interesting and illuminating.

4.5 Colour Terms and Value in Ps-Aristotle:

Like Aristotle, the author of the *'On Colours'* is principally concerned with the interaction of light and dark in his account. However, as has been noted above, this account appears to distinguish between different qualities of light. As well as the fundamental identification of white and black as simple colours, therefore, this text also identifies ξανθὸς and φλογοειδοῦς as simple colours, while at the same time emphasising their identification with sources of light, rather than with hue. Nevertheless, both these terms in other contexts have apparent hue connotations centred around yellow and red respectively, which render this list of simple colours more similar to the standard, despite its difference of emphasis.[67]

The emphasis on light in the simple colours means that there is a simple value opposition in this account, between light colours and black. To find more detailed information on colour and value, we must turn to the less abstract sections of the account, given above, which describe how the interaction of the simple colours produces various shades.[68]

4.6 Summary Table:

At this point, since the information above is somewhat dense, I have decided to include a table, which makes these relationships easier to see. I would like to point out though that these divisions are as (but no more) artificial as the 'seven colours of the rainbow.' The transitions within a colour space, whether they be of luminosity or of hue, can never be sharply defined.[69] To give an impression of this, I have attempted to arrange each column and author in descending order of luminosity, but I make no claim to the correctness of this arrangement, since it is impossible to more than guess at the relative luminosity or saturation of the simple colours.[70]

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[67] cf. four-colour system in painting, Bruno (1977:67-72) with full references.
[68] See table, p. 39
[69] See p.59-61 on vantage theory.
[70] It seems clear that for Democritus, λευκὸς was brighter than χλωρὸς, as for Plato, λαμπρόν was more luminous than λευκὸς, but it is impossible to even guess how much. Similarly, all three authors on occasion use modifiers for black (see n.80) but one cannot guess how much darker 'deep' or 'primary' black was than ordinary black. However, this does indicate that μέλας was not intended to refer to pure black, that its main reference was '**dark.**'

4.6 Summary Table of Terms (divided into value categories and arranged in descending order)

Author	Bright Colours	Intermediate Colours	Dark Colours
Democritus	λευκός		
	χλωρός	ἐρυθρός	
	πυρῶδος	πορφυροῦν	
	χρυσοειδές	καρύινον	
	φλογοειδὲς	πράσινον	ἰσάτιν
	κάλλιστον χρῶμα	κυανοῦν	μέλας
Plato	λαμπρόν		
	λευκόν	ἐρυθρός	
	ὠχρόν	φαιόν	
	ξανθόν	ἁλουργόν	
	πυρρόν	πρασιόν	ὀρφνινον
	γλαύκον	κυανοῦν	μέλας
Aristotle	λευκός	φοινικοῦν	
	ξανθός	ἁλουργός	
		πράσινος	φαιόν
		κυανοῦν	μέλας
Ps-Aristotle	λευκός		
	φλογοειδές		
	ξανθός		μέλας
	λευκός	φαιόν	μέλας
		φοινικοῦν	
		ἁλουργές	
	φλογοειδές	φοινικοῦν	οἰνωπόν
		ἁλουργές	ὄρφνινον

5. Conclusions

This chapter has not intended to be a comprehensive discussion of colour in the Greek philosophers. It has focussed on a restricted selection of the relevant material to make a limited number of points. Its main function has been to introduce, from a singular and contrasting perspective, a selection of the words which were used by the Greeks to denote colour (found also in the inscriptions, as they are found in wider literature connoting colour). In a broader sense, these texts are the most considered and concerted efforts by Greek authors to discuss both colour as a phenomenon, and the relationships between specific colours as named entities. Some of the colour terms found in these texts will be encountered again with specific relation to clothing. Others will not, but it seems clear that, since colour in clothing cannot have existed in isolation from wider culture, so the colours that we find attested for Greek clothing are best viewed alongside those that we do not.

Aside from this general point, some things are clear from the texts alone. It is clear that the conception of the interaction of specific colours does not accord with modern paradigms. I have argued that this can be traced to two basic factors: the operation of an essentially abstract and unempirical idea of mixture, and the existence of a fundamentally different conception of colour from the modern, hue-based one. The second point is of more general importance however. All these texts agree that colours, such as purple, are produced by the interaction of white and black. Of course, we may object that in physical fact they are **not**. But such an objection is irrelevant and uninformative. The passages are clear in at least this one respect – their authors do not, in their thought and writing about colour, draw an explicit or consistent distinction between achromatic and chromatic colour, between value and hue.

In these philosophical texts, black and white are not just treated as colours, they appear as **the** colours, given conceptual, textual and linguistic primacy. I have therefore argued that it is inappropriate to apply modern hue-centred categories of colour to this philosophical evidence, and that such categories (which seem so natural to modern English speakers) should be replaced by a broad distinction between light colours, intermediate (primarily chromatic) colours, and dark colours; not only in considering these texts, but also in approaching other evidence. The question of value and hue as components of colour will be addressed again from a linguistic perspective in the next chapter. But here, I wish to emphasise that the evidence of these texts indicates that the emphasis on value is not simply a matter of colour terms, but is fundamental to the description, discrimination and interaction of colours as discussed by these passages. As such, it must be taken into account in any approach to colour in Greek culture, either as it relates to material objects, or as a referent of Greek words. The rest of this thesis operates on this assumption – that in considering the colour of Greek clothing, value must be given as much attention as hue.

These passages have also introduced a further consideration – that words used for colour appear to combine a value and hue denotation. That is to say that while in English, it is commonplace to apply modifiers to the standard colour terms (light, dark, bright, dull etc.) it is not so in ancient Greek. The table on p.34 makes this clear. While the translators use English modifiers for several Greek terms, the only

colour term that is ever modified in this way by these authors in Greek is μέλας.[71] Yet it is clear from context that value (the existence of a light, bright or dark component to a colour) is of central concern. We must therefore assume that the colour terms themselves have significant and integral value denotations. Again, this point will be discussed further in the next chapter. I simply want to emphasise that this should not be regarded as a linguistic peculiarity, but as an integral aspect of how the Greeks saw, thought about and discussed colour.

One final point that I wish to reiterate is that this chapter has been concerned to establish some idea of the range of colours that might be discussed by Greek authors. The evidence examined elsewhere in this thesis will often deal with much more restricted ranges of colours, but the existence of wider ranges, and the fact that colour terms applied to clothing do not necessarily cover them, must be borne in mind.[72] Referring again to the table on p.34, it is clear that the conceptual primacy of certain colours was agreed upon by all these authors. In future chapters, it will be useful to compare these to the colours that appear to have conceptual primacy for clothing.

I have tried to demonstrate in this chapter that Greek philosophical accounts of colour are not incomprehensible or incorrect. They simply, and rather unsurprisingly, originate from a conception and categorisation of the colour space which differs in a number of identifiable respects from that now familiar. The most obvious manifestation of this difference is the inclusion of the achromatic colours in all the lists of primary or simple colours. This single fact is sufficient to ensure that these accounts must remain incompatible with our own hue-based perception of the organisation of colour. (This thesis as a whole, therefore, will not attempt to establish the use and significance of 'red' or 'green' or 'purple' in Greek clothing. It will have to discuss colour as a complex and multifaceted quality, and although this will certainly increase the complexity of its questions, it should also increase the interest and utility of the solutions it offers).

I have also tried to show that this incompatibility does not vitiate these passages as sources of information about the Greek conception of colour. On the one hand, they remain a valuable source for the relationships between colour terms; for the **range** of colour terms available to Greek speakers; for the capacity of this range to distinguish distinct colour categories; and for the various forms and derivations of the terms.[73] Where two terms are used in the same passage by the same author, but are seen as the results of different processes (whether perceived mixture of abstract colour components, or empirical observations of the effects of light) we can be sure that they are not exact synonyms.

Further, I have tried to show that although these accounts are not structured according to **hue**, they **are** structured, and that not only are their internal relationships consistent, but that there is a degree of similarity across these four different writers. This is significant for reasons which will be explored more fully in the next chapter, but which must be summarised here. Without exception, the works on the subject

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[71] See n.80
[72] See p.58

of Greek colour terms which I have encountered, despite noting the importance of luminosity to the meaning and use of colour terms in Greek, have persisted in attempting to rationalise their relationships according to **hue**.[74] Most commentators after Berlin and Kay have also taken into account the notion of 'basic colour terms' and have thus centred their efforts on isolating such terms in Greek, or, in a tradition most recently represented by Lyons, on discussing the degree of colour (particularly hue) reference which should be ascribed to such terms.[75] Much of this discussion has, in my opinion, been motivated by a general distaste on the part of Classicists towards admitting the primitivism of the Greeks in any aspect of culture, given the profoundly evolutionary perspective of the Berlin & Kay tradition of linguistic research into colour terms.[76] This distaste has led commentators either to argue for the advancement of the ancient Greek language in terms of its stage classification, or to reject the validity of the Berlin & Kay hypothesis on the one hand, or its applicability to the Greek language and context, on the other.[77]

The aim of the next chapter will be to consider some of these issues. I do not believe, and will justify this theoretically in the next chapter, that the conceptual ordering of colour on the primary basis of value or luminosity is incompatible with the existence of colour-terms with a hue connotation.[78] I have suggested a broad division into three brightness categories, and have suggested that the relationships between the colour-terms in these passages are portrayed by the authors with primary reference to membership of such categories, rather than hue categories. Therefore, to a large extent, this chapter has ignored distinctions of hue. It is not my intent to argue that these are not present. It is my intent to argue that they are **not** the basis of the conceptual ordering of colour, and that this is significant, and must be taken into account.

Another point, which needs particular emphasis because of the ideas which will be focused on in the next chapter, is that although there are relatively few – and by this I mean λευκὸς, μέλας, and ἐρυθρὸς / white, black and red – 'basic' and unproblematic terms to be found in Greek, this does not indicate a lack of sophistication in either the Greek language, or in Greek thoughts about the problem of colour.[79] These passages each distinguish at least twelve colour categories, and make use of many more

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[73] It should now be clear that where terms are used for the results of different mixtures, they must denote **separate** colours, and indeed, in at least some senses, different colour-categories, cf. n.45

[74] See p.4-6 for discussion of this as among the central points of the thesis.

[75] Lyons (1999:60-65)

[76] See p.46-49

[77] Lyons (1999:39-56)

[78] It may well preclude the existence of 'basic' colour-terms with a hue connotation though.

[79] Incidentally, I would argue that the agreement of the philosophers - and here we can include also Empedocles, according to Rowe, (1972:341) see also Hirschberg (1920:21) - on ἐρυθρὸς as the basic term for red, should be regarded as definitive, despite the high incidence of the other red terms in poetry. The use of φοινικὸς in Aristotle does not necessarily present an objection to this, particularly in the context of the rainbow, which is a particular kind of colour. On maximal brightness/chromaticity, see Hardin & Maffi (1997:367)

terms to indicate different aspects of these.[80] It is my opinion that while the distinction between basic and non-basic terms drawn by Berlin and Kay, and widely adopted since, is a useful one, insistence on it is largely founded on an evolutionary linguistic perspective.[81]

Finally, and most importantly, I hope that I have demonstrated that the emphasis on light and dark in Greek colour is not restricted to language. That is, that it permeates these philosophical conceptions of colour, and informs the relationships of colours and of colour terms whose reference is not necessarily simply to luminosity. What I have tried to establish is that an approach to colour in clothing that insists upon using English hue based colour categories must be inappropriate. When looking at Greek colour, it is necessary to consider not only a separate class of brightness terms, but also the relative luminosity of the colours themselves. This is worth emphasising simply because our own language and view of colour is so hue centred that the other components of colour as a quality are easily forgotten, especially in the absence of the standard modifiers.

[80] Only μέλας appears with a modifier indicating value; μέλας σφόδρα 'deep black' (Thphr. 77) μέλαν κατακορὲς 'deep black' (*Tim.*68c).

[81] I would point out that two of their English 'basic' terms, pink and orange, came into common use as plant names. See n.51 above, and p.46-49, 56-59.

Chapter Two: Greek Colour Terms and Linguistic Theory

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1. Preface

This chapter has two essential functions. Although the subject of this thesis is both material (the use of colour in Greek clothing) and translinguistic (the social/cultural significance of colour in Greek clothing) the evidence it considers is primarily, of necessity, verbal. The preceding chapter has argued that individual colours can only be usefully considered in terms of the wider conception of colour in Greek culture. In terms of the thesis as a whole then, this chapter builds upon the argument by considering how individual Greek colour terms relate to such a wider conception, and to each other to comprise a functioning language of colour. The first part of this chapter therefore attempts to define the position of this research on current theories about colour language. The second part explores how this cross-cultural evidence, in conjunction with that of philosophy, suggests ways in which the relationship between salience of various aspects of colour in categorisation, and the prominence of particular terms in the verbal representation of colour in clothing, might be investigated.

The previous chapter provided a variety of Greek colour terms which, although not abstract in themselves, were clearly seen as appropriate to label various cognitive colour categories. It also attempted to suggest an outline of the Greek conceptualisation of the colour space, and concluded that the most clear distinction between the results of the described mixtures was of relative value. It pointed out that despite the scarcity of 'basic' colour terms, these discussions of colour agreed in identifying a relatively high number of distinguishable colours, and displayed a sophisticated understanding of the problems of colour. However, it proved extremely difficult to discern the hue relationships between the different colour categories. Therefore, this chapter has the specific purpose of considering two particular aspects of the linguistic evidence. Firstly, how modern theories about colour-language can be useful in illuminating the relationship between value and hue as referents. Secondly, how the use of non-basic, discriminatory, terms might elucidate the relative salience of the different aspects of colour (and not just the different hues) both in wider culture and with specific reference to clothing.

1.1 Introduction: Linguistics and the 'Berlin & Kay Hypothesis' (BKH)

The work of Berlin and Kay, and the tradition established by it, has already been touched upon in the previous chapter. Kay (1999:76) summarises its basis "the tacit assumption that every language contains a small set of words – the basic color terms – each of whose significatum is a color concept and whose significata jointly partition the psychological color space." Although there are significant objections to the true universality of their results, and although for practical reasons their methods cannot be applied in this case, it would be foolish not to make use of the comparative data and insights which such work provides. In their original text, B&K themselves made some small attempt to deal with Greek colour terms, and their ideas have more recently been applied (with reservations) to the language by Lyons.[1]

However, before moving on to do so, there are several points which ought to be made about the theoretical context of such research. Lyons summarises: "Much of the research done on the vocabulary of

colour in natural languages over the last twenty years or so has been stimulated by Berlin and Kay's (1969) *interesting and influential attack on the relativistic view of color terms associated with structural linguistics.*"[2] From the point of view of this study of colour in Greek clothing, the linguistic context of such research needs to be addressed. The fact that the Berlin & Kay hypothesis was, and remains, an attack on structural linguistics must be considered integral to its formulation and elaboration. Not only their initial research, but also the subsequent research tradition, must be seen in the context of the wider philosophical and theoretical controversies in the field of linguistics.[3] It is not my contention that any such considerations invalidate the research or its conclusions and hypotheses. I simply wish to point out that the aims of such research are conditioned by wider considerations. An illuminating example is provided by the companion articles by Lyons and Kay in *'Colour Language in the Mediterranean.*[4] Both are interesting because they provide the perspectives of linguists, rather than classicists.

Lyons' article challenges the applicability of the B&K hypothesis to ancient Greek, Latin, and to Hanuoo, and by implication, refutes its claims to universality. Kay's article responds to this challenge, and to the alternative put forward by Lyons. Both authors have valid and interesting points to make about Greek colour terms. But it must be said that they are concerned with the Greek language only in so far as it provides supporting evidence for their more general positions. And to an extent, it would not be unfair to say the same of many other pieces of linguistic research since 1969. It is a testament to the quality and influence of the original research that it must be taken into account by research into colour and colour-terms across a whole variety of fields.

I have suggested above that Lyons represents one class of commentary on Greek colour-terms, and that another is characterised by those who take issue with the relatively primitive status accorded to ancient Greek in the B&K 'Stage Classification' system.[5] I would like to point out that the B&K hypothesis is evolutionary because of considerations arising from within the field of linguistics. As a linguistic hypothesis, its universality is important to its status and usefulness. By its very nature, having been formulated from the results of a particular kind of research which elicited a particular kind of response, it is concerned with the evolutionary process of the emergence of discriminatory 'basic' colour-terms across languages.[6] Its insistence on 'basic-ness,' which is challenged by Lyons (1999:50ff) and defended by Kay (1999:77-82) is necessitated by its aim of cross-cultural applicability, and its interest in the emergence of hue categories which correspond to those of English and other modern, Western European, languages.[7]

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[1] Lyons (1999:38-75)
[2] Lyons (1999:50) My italics
[3] A further complication is introduced by the increasingly strong links between some branches of linguistics and the discipline of cognitive neuroscience: see various articles in Hardin & Maffi (1997).
[4] Borg (1999)
[5] p.48ff
[6] Kay (1999:76-89, esp.82ff) See Hardin & Maffi (1997) for full bibliography.
[7] Lucy (1997:320-46) I am not trying to be critical here, although some adherents of the hypothesis would perhaps take issue with the implication of bias.

1.2 Application of the BKH to ancient Greek

The Berlin & Kay hypothesis is not, though it is often assumed so, the last word on the language of colour. It may claim to be the latest, and still seriously unchallenged, word on certain aspects of the **linguistics** of colour.[8] There are a number of reasons why the 'BKH,' as it is commonly referred to, is largely irrelevant to the case of ancient Greek. The main one, alluded to above, is that the standard research methodology (and it has to be standard, for cross-cultural applicability) required by the BKH cannot be applied to ancient Greek.[9] For this reason, Kay quite rightly dismisses the relevance of ancient Greek as the foundation of any alternative or contrary hypothesis.[10] The second is that while on the basis of the extensive, but of course literary, evidence which we do have for ancient Greek, it can be provisionally assigned to a BKH 'Stage' (usually III or IV) such an assignation in itself tells us very, very little about Greek colour or colour terms. This is not an objection to the BKH, which does not intend to tell us about colour in **individual** languages (being concerned with colour in language as a means of demonstrating the existence of language universals). Applied to individual languages, it purports to locate them in an evolutionary continuum. As classicists, we may object in principle to the placing of 'our' language on their continuum, especially since to hellenists the complexity and flexibility of the Greek language is impossible to doubt.

The real basis of such objections seem to me to be the implication that only 'basic colour terms' as defined by B&K, count as 'real' colour-terms. That such an implication exists, I have no doubt. That it is founded on fact, or even in the BKH, I would certainly question. In terms of the BKH, it is certainly true – the structure of the hypothesis is such that only basic colour-terms as it defines them, are relevant. But this does not mean, nor have the authors claimed, that non-basic colour-terms are irrelevant in any wider sense. Further, it is not my understanding of the BKH that it claims that speakers of a language which contains a limited number of 'basic' colour-terms are unable to distinguish between colours for which they do not have 'basic' terms. My understanding is that speakers of such languages will simply use 'non-basic' terms to make such distinctions. However, it is not the function of the BKH to explain or investigate such terms.

There are two additional factors which have tended to confuse the issue of the application of the BKH to ancient Greek. One is the order of acquisition it establishes, of basic colour-terms by languages (at least for the first six colour categories in the BK-hierarchy, white, black, red, green, yellow, blue; that is for languages up to Stage V). This accords with the oppositional system of visual primaries proposed by Hering and accepted by subsequent visual science.[11] However, it is not hard to see how the implications of this correspondence, in conjunction with the general attribution of Stage III or IV to ancient Greek, seems rather too close to the discredited colour-blindness theories of some early commentators.[12]

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[8] Lucy (1997) disputes this with some force, and very persuasive arguments, but it is not at issue here.
[9] Questioning informants' responses to the Munsell array, see Fig.1&2, p.63
[10] Kay (1999:77)
[11] See n.3, and Wooton & Miller (1997:71-2) also p.51 for figure and discussion of Stage system.
[12] See p.3, n.6

Such queasiness on the part of classicists is not helped by the use of experimental data from apes to reject not only challenges to the BKH but also to counter "explanations of the perceptual categorization of hue . . .that attribute categorization to language and culture".[13] However, it is clear that the implication of such data is not that languages which have fewer 'basic' colour categories than there are Hering primaries are substandard or deficient.[14] If a chimpanzee "after training to match with a name, in the form of a visual symbol, eleven colours closely approximating the B&K focal colours. . .applied those names to a large array of colours in much the same way as a human observer . . .and in a way that rather closely reproduced the chart shown in Figure 3 of BCT: 'Normalized Foci of Basic Color Terms in Twenty Languages (Berlin and Kay 1969:9)" it can hardly be suggested that a human **with similar training** would perform less well.[15] Rather, the implication of such data is that there are a certain number of categories which can be attributed to native properties of the primate visual system and which also come to be encoded in languages as 'basic colour-terms' according to the BKH. This data is generally held to provide objective verification of the BKH, but it does not conversely imply that speakers of languages below Stage V are incapable of such discriminations – in fact, it would seem to me to imply the opposite.[16]

2. Colour Terms and BKH 'Stage Classification'

So what are the implications of the fact that ancient Greek is generally placed relatively low in the BK-hierarchy? I would argue that, despite the fact that evolutionary hypotheses tend to imply that advancement in their terms can be equated to advancement in a wider sense, this is an implication only. Therefore, what an attribution to BK Stage III or IV tells us about Greek is not that it is deficient in colour-terms, or that its speakers were unable to make or communicate distinctions between more than the four or five categories for which they had 'basic' terms. What it does imply is that, on a spectrum of potential colour categorisations (which extends from the existence of two basic colour-terms which distinguish between light and dark, through to a situation where there are also basic colour-terms for all four primary hues, as well as up to five of their secondary mixtures) the Greek language tends to the **former**, rather than the latter.

Again, it is necessary to remember that the hypothesis only deals with basic terms. In this consideration of Greek, since the focus is not on the linguistic factors themselves, but on language as it reveals colour, it is not necessary to restrict our focus to basic terms. With that in mind, we can look in more detail at what the BKH has to say about its earlier 'stages.' According to Kay "a stage I system was defined as having two terms: one for white and all light shades and one for black and all dark shades . . . Later . . . it was discovered that . . . the white-including term tends to include as well the so-called 'warm'

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[13] Sandell et al. (1979:628) Kay (1999:87)
[14] Although it should be pointed out that such an implication, however unintentional, is an inevitable part of any evolutionary system which takes the current situation of its formulators as a destination. It can be argued that the validity of such systems is in fact inherently suspect, but that is another question.
[15] Kay (1999:87)
[16] cf. Allen (1879:205) Segall et al. (1966:38-41)

colors (red and yellow principally) while the black-including term tends to include the so-called 'cool' colors (green and blue principally). Both versions of the B&K sequence shows [*sic*] lightness considerations to dominate early stage systems. All the developments up to stage V . . . can be viewed as breaking down the original white-warm and dark-cool channels to their separate chromatic and achromatic components [KBM&M]. In short the B&K approach *emphasizes the lexical conflation of lightness and hue information in the basic color terms of early systems.*"[17]

It may be profitable therefore to examine this research, on the assumption that the distinction of hues made by non-basic Greek colour-terms is more likely to follow the pattern (which the more recent research by Berlin and Kay has established) for the emergence of basic colour-terms from this conflation, than the pattern of modern English. The philosophical evidence not only supports this conflation, it also confirms that the attribution of a pre-Stage V status is relevant conceptually, as well as linguistically.[18] However, although such an examination may help us to locate the hue reference of terms, this should not obscure the fact that this hue reference nevertheless existed within a broader conception of colour still very much concerned with the fundamental distinctions of luminosity.

2.1 Implications of BKH 'Stage Classification'

The article on the aims and methods of the World Color Survey presents models of the break-up of the 'warm' and 'cool' channels which has been observed in various languages.[19] These provide a much more sophisticated conception of the process than the linear sequence envisaged by the original study, and are worth looking at with reference to ancient Greek. Being able to locate the Greek language somewhere in this paradigm is important because it allows us to understand some of the potential relationships between brightness and hue in the Greek conception of colour. If the BKH is correct, and the basic colour terms of the language should be seen as jointly partitioning the colour space, then the non-basic terms should be seen as expressing aspects of, distinctions within, and mixtures between, these partitioned areas. And because, in B&K terms, the 'light/warm' and 'dark/cool' channels of Greek are only partially decomposed into their component hues and values, these non-basic terms will also have both hue and value reference. In short, setting aside the universalist and evolutionary aspects of the BK paradigm, its basis in the Munsell system seems to function as a way of allowing us to see fundamentally different conceptions of the colour space in a way we can understand with reference to our own. This is not to say (and Kay's description of Hanuoo as "a readily classifiable B&K system"[20] by implication accepts this) that the B&K paradigm encompasses all the various aspects and connotations of a given colour conception, such as an association between a particular term and moisture which transcends the otherwise

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[17] Kay (1999:84) The references given are to Berlin & Kay (1969:17) and Kay, Berlin, Merrifield & Maffi, (KBM&M) in press. My emphasis.
[18] See p.40-43
[19] Kay et al. (1997:21-56)
[20] Kay (1999:87)

applicable hue connotations.[21] Nor is it to say that it is correct. However, it is more useful to have a framework, albeit with recognisable limitations, than not.

For the sake of easy comprehension, I have reproduced the table below:[22]

		W R/Y G/Bu Bk **III.G/Bu**	W R Y G/Bu Bk **IV.G/Bu**	
W/R/Y Bk/G/Bu	W R/Y Bk/G/Bu	W R/Y G Bk/Bu **III. Bk/Bu**		W R Y G Bu Bk
		W R Y Bk/G/Bu **III. Bk/G/Bu**	W R Y G Bk/Bu **IV. Bk/Bu**	
		W R Y/G/Bu Bk **III. Y/G/Bu**	W R Y/G Bu Bk **IV. Y/G**	
		W R Y/G Bk/Bu **III. Y/G**		
I	**II**	**III**	**IV**	**V**

This table shows the most recent formulations of the possible patterns through which a given language may move from Stage II to Stage V - useful because it indicates the variety of ways in which the colour space is divided by language. In general, what it illustrates is that discrimination between different aspects of each of the two 'channels' 'proceeds' at varying rates in languages. It seems from the WCS data that some languages emphasise discrimination within the 'warm' channel to such an extent that all its 'components' have separate basic terms, while the 'cool' channel remains undifferentiated.

I would classify ancient Greek as being in transition between **Stage III. Y/G** and **Stage IV. Bk/Bu**, on the basis of the philosophical evidence discussed in the previous chapter. My understanding of the implications of this for the conceptual categorisation of colour is as follows. In **Stage III. Y/G**, the principal partitions of the colour-space are into; white and the lighter, brighter, shades of all hues; red and

[21] Lyons (1999:60-63) For Greek, it has been argued, and not just by Lyons, that this is the case with χλωρὸς. Irwin (1974:31-3)
[22] KBM&M (1997:33, Fig.2.4)

the 'warm' shades of yellow and blue; green and the remaining shades of yellow; and lastly, black, blue, and the darker, duller shades of all hues. In **Stage IV. Bk/Bu**, the partition is the same, except that there is a separate category for yellow.[23] It should be reiterated that these are not the only partitions of the colour-space which are made by such languages. There are other, non-basic, terms which denote blue as distinct from black when such a distinction is necessary; or the warm shades of blue (i.e. purple); and so on. Nevertheless, these would be the basic structure within which such finer discrimination is carried out. This addresses two of the most confounding aspects of ancient Greek colour language; the absence of a salient or obvious term for blue, and the varying placement of either ξανθὸς or χλωρὸς in Greek lists of simple colours.[24] The conflation of black and blue into a single category explains too much, both about the use of their respective Greek terms in literature, about the place of black in the philosophical accounts of mixture, and about the place of black in accounts of pigmentary mixture, to be seriously questioned.[25] The relative status of yellow and green however, cannot be more than a matter of opinion.[26]

2.2 Colour Terms, Colour Categories and Linguistic Evidence

If it is accepted, for the sake of argument at least, that the Greek language is transitional as described above, what implications would this have for Greek colour categorisations? Perhaps the main thing one would expect to find is more colour-terms covering the light/warm areas of the colour-space and its borders with the dark/cool areas, within which there would be less attention paid to internal distinctions. One would expect to find at least one 'basic' term for 'yellow,' and a variety of non-basic terms which distinguished the 'yellower' and 'warmer' areas of the yellow/green partition, since the decompostion of the dark channel has proceeded more slowly.

Looking at the table on page 39, this is what we do find: many terms which deal with the whiter, warmer colours, slightly fewer which deal with the transitional area between the 'channels' and therefore the 'chromatic' areas, and very few terms which discriminate between the darker colours. What is also noticeable is a good deal of attention being paid to distinguishing between warm **bright** colours (named with reference to fire) and 'red.'[27]

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[23] MacLaury's (1997:261-82) complex argument may be summarised in terms of its relevance to this point – the emergence of a distinct category for 'yellow' would not only remove the 'yellow' component of the 'yellow-green' category, it would cause the conceptual focus of the remaining 'green' category to darken.

[24] See p.21-30, 33-39

[25] See p.18 n.23 & p.128ff also Irwin (1974:79-110) Geiger (1878:49, 52)

[26] There is no evidence in Greek literature of a conflation of the colour category we term 'red,' and that we term 'yellow.' See Introduction, n.26 and above re. placements of ἐρυθρὸς **and** either χλωρὸς or ξανθὸς in lists of 'primary' colours, which precludes such conflation, see p.60f.

[27] If we instead consider the pattern of translating these terms, we find confusion in a number of particular areas. On the one hand, there are terms which are given various translations (which nevertheless share the same basic English hue reference) either by the different translators, or within the same passage: χλωρὸς, πρασίνον, κυανοῦν, and φλογοειδοῦς. On the other hand, there are terms, such as πορφυροῦν, ὄινωπον, ὀρφνινον, and πυρρὸν, where the English hue sense is not agreed upon (the main difficulty with the latter term being that its mixture clearly puts it on the light/bright side, which does not accord

Perhaps the most general significance of the linguistic research is its emphasis that colour-terms within languages do not simply function as single, independent words which refer to specific colours. Instead, they form systems which together express the conceptual divisions of the colour-space. If we consider the Munsell array from the perspective of modern colour conceptions, the main divisions are clearly vertical, as opposed to horizontal – it matters more that the chips are 'blue,' than whether they are light or dark. (Fig.1, p.63) The implication of the preceding discussions of both philosophy and linguistic theory, however, is that in Greek culture, the principal divisions were essentially (but not exactly) horizontal. In the previous chapter, I suggested a tripartite division into light/bright, chromatic, and dark colours. The table reproduced above illustrates that such a division is supported by linguistic research.[28]

Rather than becoming embroiled in the debate about 'basic' terms in Greek, it seems more useful to focus on the implications of this difference: primarily that (as has been demonstrated by the philosophical texts) the conceptual importance of light vs. dark is very much greater than in modern colour-categorisation. It might be suggested, on this basis, that it would matter more whether the chips were particularly light or dark, than if they were 'blue.' The corollary of this is that hue would have been of primary conceptual importance only when this was **not** the case, since there is no shortage of vertical (hue) distinctions within the 'chromatic' group of colours. The primary difference is that, unlike in modern English language and colour-categorisation, in Greek language and colour-categorisation, such hue distinctions do **not** appear to **transcend** value distinctions.

3. Hue, Value and Saturation in Colour Concepts, Categories and Spaces

In the first part of this chapter, I have discussed and defended the 'Berlin and Kay' approach to colour and colour-terms. I make no apology for doing so; it has had such a profound impact on almost every aspect of recent colour scholarship that it must be taken into account. I maintain that as a paradigm, it can illuminate **some** aspects of the evidence, and at this point, I could certainly go on to make my own translations of the colour terms used by the philosophers. However, the aim of this investigation is not to draw conclusions about Greek colour-terms. The reasons (other than those outlined already above) for going into the subject at all are in order to provide a context for the terms which are used specifically with reference to textiles and clothing. The impact of the emphasis on luminosity on the reference of colour terms to *hue* has been examined from the perspective of the Munsell dependent BKH, which has the advantage of being relatively accessible to English speakers. Two potential perspectives on the Greek colour space have been suggested; one which concentrates on luminosity, and that of the BKH which purports to integrate considerations of luminosity and hue.

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particularly well with 'chestnut'). These are not the only 'problem terms' by any means, but they are the ones which, despite the best efforts of the translators, remain unintegrated into even these local systems of colour translation.

[28] MacLaury "Certain ranges whose meanings have not been analysed experimentally traverse the Munsell array in horizontal bands of what appears to be high, middle, and low brightness." (1999:19)

The first of these perspectives is obviously flawed, as the basis of a modern study of colour, by its failure to include hue. The flaws of the second are perhaps less obvious, but there is a fair amount of evidence to indicate that the Munsell colour space is not even sufficiently expressive of current conceptions of colour, never mind of those described by languages like Hanuoo and ancient Greek.[29] It has its uses, but those uses are limited. From the point of view of Greek, and of descriptions of Greek textiles in particular, the most significant is the failure of the surface of the Munsell colour solid to take into account the implied opposition between "the variegated and the ill-defined among colours," (*'On Colours'* 792b.34) and the singular and well-defined.[30]

3.1 The Swedish 'Natural Colour System' (NCS) as Paradigm

In order to do so, it is necessary to look at yet another colour space, which has already been argued to accord more fully with Greek colour-categorisation.[31] It also takes better account of saturation as an aspect of colour.[32] Lars Sivik, one of the creators of the NCS, has this to say about the origins of the Munsell Color System "The color world was evidently one and it could unambiguously be described by the dimensions of Hue, Value and Chroma as a Euclidean space. This monotheistic view of the color world also seems to permeate a great deal of Anglo-Saxon color research (including color-naming studies)" (1997:167). He also asks "Is it not interesting to know whether the inner color nuances have specific names in various cultures? (These colors are more numerous than the ones from the surface of the color solid)." (1997:190) In the NCS, Swedish researchers have a system which allows them to study such nuances, and appear to have used it to great effect.[33]

Unfortunately, saturation would seem to be particularly difficult to study from a linguistic point of view for Greek. In English, it is usually expressed by modifiers; 'bright' red, 'deep' red, 'strong' red etc. In the previous chapter, I made no distinction between 'bright' and 'light' because it is simply not clear from the Greek words such as λαμπρὸν and στίλβον whether brightness in the sense of 'glittering'

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[29] Lyons (1999:52-4) Lucy (1997:323-8)

[30] i.e. named, salient colours. See Fig.1,2, p.63. The array used by B&K and in subsequent research varies only with hue and value, not with 'chroma' as all the chips are of maximum saturation, and does not take into consideration mixtures between red and green, etc. which are found 'inside' the colour solid. cf. MacLaury (1999:18) and Sivik (1997:192)

[31] Since it emphasises white and black as positive qualities, and is less dependent on articulation by hue (because it does not, unlike the Munsell colour space, pre-locate maximum chromaticity on the vertical axis). See Fig.3 cf. Fig.2 – note position of yellow in maximum value row of Fig.1 (all Fig. p.63-4)

[32] Saturation is likely to be equally important to colour in textiles as hue or luminosity, and this is one area of colour where evidence about dyeing may prove to have a significant impact on our understanding of colour terms, since saturation of dyed colours is both literally and figuratively apparent. In order to achieve either dark or bright shades through dyeing the fibres must be completely saturated in the dyestuff, and take up the maximum amount of colourant. See p.208-228

[33] See Fig.4, p.64

or in the sense of 'intense' is meant, or both. The best course would seem to be to keep the options in mind.[34]

Nevertheless, some of the Swedish data is very suggestive, even if we are not in a position to confirm its applicability to Greek.[35] The perceptual basis of the NCS, certainly seems to have produced a combination of greater flexibility and wider applicability.[36] Among the results of research using this system into the 'character and associative meanings of colors' was "A conspicuous result, perhaps astonishing for many, . . . that the color parameter *hue* had less influence on the semantic variance than the other color parameters chromaticness, whiteness, lightness and blackness. The connotative variable 'active-passive,' for example, was thus primarily dependent on the chromaticness of the color. Whether it was red or green was less important." (1997:187) Such results indicate that despite forming the basis of 'basic' colour categories and terms in the modern European languages, hue is still not colour, and not necessarily paramount in even our reactions to it. This, in respect to this research into the significance of colour in clothing, provides further confirmation that investigation of colour cannot be restricted to hue categories.

The structure of this colour-space can be argued to illustrate a putative tripartite, horizontal, colour-categorisation, much more accurately than the Munsell array, since it emphasises three salient qualities for each colour independently of hue: whiteness/brightness, blackness/darkness, and chromaticness. Further, these salient points (literally) are integrally opposed, for **every** hue, to an intermediate, interior, area of variegation and ill-definition around the central, grey axis.[37]

3.2 Conclusions on the Application of Conceptual Models

This chapter has discussed a variety of ways in which the colour-space can be considered and analysed, so far mainly to establish relative hue/value reference. The reader might perhaps have been more satisfied to find one of these identified as the most suitable. However, there is no single, current conceptual model that accurately describes the relationships between Greek colour-terms. Flexibility, an appreciation of how understanding of Greek colour is inevitably conditioned by one's own colour-categorisation, and awareness of the role of English as a metalanguage, are the only defensible ways to approach the subject. I have spent time on this issue because it seems particularly necessary to define a conceptual framework in carrying out this sort of research, where the literary nature of the evidence cannot be divorced from its content. All these different ways of looking at colour have contributed to the development of my own, personal, understanding, of the meaning and content of the colour terms I have encountered, and which the more factual chapters of this thesis deal with. Inevitably, this personal

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[34] On distinctions between bright and dull colours, see Bruno (1977:70) Pollitt (1974:321ff, 373) Lepik-Kopacyznska (1958:79ff) and Pliny, *NH* 35.30,97,120

[35] See p.6 also n.29 above

[36] Sivik (1997:181)

[37] See Fig.4 cf. Introduction, n.38 – Munsell system defines the other aspects of colour with reference to their impact on hue.

understanding differs in some respects from those I have encountered in the work of other commentators. Making the attempt to define my own position, and my understanding of the wider issues which surround any attempt to talk about colour, has seemed to me the best way of widening the utility of my research outcomes.

To summarise, I have argued that the apparent dearth of 'basic' colour-terms and categories in Greek (λευκός, μέλας, ἐρυθρός or φοινικός and either χλωρός [yellow-green] **or** ξανθός [yellow] plus πρασινός [green]) is less important than the essential distinction between light, chromatic, and dark colours, suggested by philosophy. Through the use of contrasting modern paradigms, I have attempted to illustrate this hypothetical conception. The rest of this chapter is devoted to discussing how best to establish the relationship between salience in conceptualisation and salience for clothing. Its main contention is that it is necessary to consider the qualities of colour which might have occasioned the use of non-basic, discriminatory terms to identify subsidiary colour-categories (the results of secondary mixtures, or intermediates in descriptions of colour ranges). Therefore the appearance of such terms in the previous chapter will be considered in terms of two theoretical perspectives: on the role of dyeing in the innovation of secondary terms, and on the general distinction between assessment of similarity and difference as bases of the use of colour-terms. The primary purpose of this discussion is to provide a context for, and suggest the reference of, the restricted range of colour-terms applied to clothing in the evidence of later chapters.

4. Basic and Non-Basic Colour Terms

The philosophical descriptions of colour, though they differ in detail, agreed upon basic structure – identifying a small number of 'primary' colours, and a larger number of 'secondary' colours. So far, this chapter has discussed the relationships between the 'primary' colours and supposed 'basic' Greek colour terms. With regard to the 'secondary' colours it has argued that the overall use of terms in the philosophers indicates that simple distinctions of hue were only of primary importance between the colours located around the horizontal axes of modern-colour spaces. It has also pointed out that their pattern of colour-term use accords with linguistic paradigms in paying more attention to differences between various light/warm colours than dark/cool ones. However, why these particular 'secondary' colours were identified as salient has not so far been considered, except to state that as products of mixture they do not conform to modern assumptions, and to suggest that for 'light/bright' colours they emphasise the combination of value/hue, while distinctions between 'chromatic' colours emphasise hue.

In considering the use of 'secondary' terms, the researches of Casson (into the shifting emphases of English colour terms) provide a clear formulation of the reciprocal interaction between vocabularies of dyeing and of colour. [38] The correspondence between the innovations in techniques and trade of the Middle English and Classical/Hellenistic periods, and the parallels between the evolutions of the English

[38] Casson (1997:224-239); (1994:5-22); (1992:395-99)

and Greek languages, are not so direct as to merit a detailed examination.[39] However, the relevance of these researches is increased by the attention they pay to the parallel evolution of basic and secondary colour terms. I hope I may be excused for simply quoting extensively from his conclusions, and referring the interested reader to the articles themselves for detail and methodology.

"The development of dyeing and textile manufacture was a motivating factor, although certainly not the only one, in the evolution of English color categories. . . Culture members innovated secondary color terms on the basis of an ontological metonym, which can be stated as 'Entity stands for entity's color' – that is, names for entities with characteristic color associations are converted metonymically to color terms. . . These entity sources neither caused secondary color terms to be innovated nor determined the direction of their development. They were, however, innovated in a nonrandom order. *In general, the earliest secondary color terms were the names of dyestuffs, pigments, and textiles . . .Culture members innovated these early terms in response to the increasing need for more secondary color names, and colorants and textiles, as ingredients in and products of color processes, could readily stand for their highly characteristic associated colors.*" (1997:236-7) In conclusion, he states "The color shift from brightness to hue ... can be seen as a response to an increasingly complex color world ... *The development of secondary color terms ... can also be attributed to this increasingly diverse array of culturally significant colors*... Culture members restructured their systems of color categorization by ... *innovating simple terms to encode numerous finely differentiated secondary hue categories.*" (1997:238)[40]

It seems quite possible that a similar tendency from brightness to hue might be discerned in the evolution of Greek basic terms over the entire period from the Archaic to Byzantine eras, although, while the two processes are related they are not necessarily conditional.[41] The use of such an 'ontological metonym' has already been noted above, and the Table below provides an overall summary.[42] The first column gives the colour-terms used in the philosophical evidence (the second their putative 'colour-group') while the third gives related dye-terms where present. The remaining columns present the more restricted range of terms applied to coloured clothing in the other types of evidence, while the last column gives the term-type specification, discussed below.

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[39] Labarre & Le Dinahet (1996:58-115)

[40] My italics throughout.

[41] Such an investigation is (thankfully) far beyond the scope of this thesis, and would be rendered much more difficult by the lesser and more variable quantities of text available for the period.

[42] See above, p.35 also re. the use of –ειδους and χρωμα to construct colour-descriptions.

4.1 Colour Terms in the Evidence ('basic' categories/terms in bold).

Philosophy	***Cat***	**Dyeing**	**Brauron**	**Drama**	**Regulations**	**Ty**
ἀλουργός	*chrom.*	ἀλουργῆς	ἀλουργὸς	ἀλουργὸς		a.
ἀνθὸς/εὐανθὲς	*chrom.*	ἀνθὸς		ἀνθηρὸς	ἀνθινὴν	a.
			βατραχειοῦν	βατραχειὸν		b.
γλαυκός	*light*		γλαυκὸς			c.
ἐρυθρὸς	*chrom.*	ἐρευθεδανὸν				*
					ζτεραῖον	
		θαψὸς	θαψινὸν			b.
ἰσὰτις	*dark*	ἰσάτιν				a.
καρύινον	*chrom.*					
			καταστίκτος			b.
		κροκὸς	κροκωτὸς	κροκωτὸς		b.
κυανοειδοῦς	*chrom.*					
κυανοῦν	*chrom.*					
λαμπρὸν	*light*			λαμπρὸς		c.
λευκὸς	*light*		λευκὸς	λευκὸς	λευκὸν	c.
μέλας	*dark*			μέλας	μελάνα	c.
		μηλινὸς	μηλινὸν			b.
ξανθὸς	*light*					
			ξυστιδῶτος	ξυστὶς		b.
οἰνωπὸν	*dark*					
ὄρφινον	*dark*			ὀρφυῇ		c.
			ποικίλον	ποικίλος	ποικίλον	b.
πορφυροῦν	*chrom.*	πορφυρῆς		πορφυρεὸς	πορφυρέον	a.
πορφυροειδοῦς	*chrom.*					
πράσινον	*chrom.*					
πυρρὸν	*light*					
πυρώδους	*light*					
στίλβον	*light*					
φαιοῦ	*dark*					
φλογοειδοῦς	*light*					
φοινικοῦν	*chrom.*	dye process?[43]	φοινικοῦν	φοινικὸς		a.
χλωρὸς	*light*					
ὠχρὸν	*light*	ὤχρα				a.

The terms in this table fall into four categories, three of which are marked in the Type column above. Type a. (six terms, four with chromatic reference, one each light and dark) is as Casson describes: terms derived from dye-results or processes which are used for secondary colour categories. These colours specific may be inferred to have been so salient in clothing that they came to represent general colour-categories.[44] Type b. (seven terms) contains specialised terms for the colour of clothing which are not used

[43] Possibly refers specifically to the results of the process of dyeing with kermes, see p.229

[44] ἐρυθρὸς is marked *since it seems to constitute a reversal of the metonym – colour stands for entity. p.56

for general colour (some derived from dyes, some not). It is notable that most of these are used discriminatorily from general colour-terms which appear to share the same hue reference, but are not applied to clothing i.e. (specific) κροκωτὸς, θαψὸς, μηλινὸς cf. (general) ξανθὸς and βατραχειῶν cf. πρασινὸν or χλωρὸς (also, φοινικοῦν cf. ἐρυθρὸς). This implies that their main reference is not to a general colour-category, but to specific aspects of colour: i.e. although βατραχειὸν may well have included the sense of 'green' it cannot have **just** meant 'green.' Type c. (five terms, all with light or dark reference) is general colour-terms which are applied to clothing, and emphasises the salience of this aspect of general colour-categorisation for clothing. The fourth type is unmarked, but is the largest, and contains all those general colour-terms that are not applied to clothing (in the main types of evidence considered by this thesis).

In general, what the table indicates is that colour in clothing did, as Casson suggests, play an important role in Greek secondary colour-categorisation: particularly in the more specific distinctions between colours. It also demonstrates the existence of specialised terms for the colour of clothing, and of overall patterns of colour-term use and colour reference across the different types of evidence, which will be considered in more detail along with the evidence.

5. Vantage theory

Type b. above has introduced one further aspect of colour language which deserves a brief examination – the discriminatory or exclusive use of colour-terms. Much colour research has focused on naming colour samples, and identifying colour 'foci.' However, as MacLaury points out, neither of these tasks accurately reflects the processes of everyday colour categorisation, which he argues can usefully compared to spatial orientation, carried out by means of landmarks, foregrounding and backgrounding, etc. "In an ordinary hue category, such as cool, the coordinates are (a) the elemental colour points and (b) the reciprocally balanced emphases on the *similarity* and the *difference* that pertain between the points. . . the judgements of similarity and difference are not opposites: *subjects look for relations when judging similarity whereas they seek attributions when assessing difference.*"[45]

Thus, there are two distinct mental processes at work. On the one hand, we can locate, categorise and name a colour by assessing its similarity to other known colours (in MacLaury's research, elemental color-points). On the other, we can achieve the same end by assessing its difference from known colours which may be conceptually adjacent or opposite. In practice, we do both these things at once. MacLaury's interest in these processes is partly as "the propellant of category change" (1997:269) and experiments with mapping tasks provide data that we will never have for ancient Greek. However, his formulation of the distinctions between these processes is nevertheless of wider conceptual importance.

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[45] MacLaury (1997:266) My emphasis. Much of this article is rather technical, and based on the results of the author's Mesoamerican Color Survey, which included a mapping task as well as the naming and foci identification. The 'elemental colours' referred to are the now generally accepted hues of Hering's theory of opponent-process color vision, see n. 3, 11

If we extend awareness of these processes to our attempts to imagine Greek colours from their names (which after all is how we translate them) it seems clear that, like the tasks of colour-term investigators, our efforts are usually focused on the positive side of this process. To ascertain what a particular colour-term means, we fall back on collecting instances of its denotation of coloured objects, and from this attempt to form a composite picture.[46] What such an approach fails to take into account is that colour-terms function in two distinct ways within language, which reflect the distinction raised above. That is, colour-terms can express both relation and attributes, or to put it another way, their meaning can be both inclusive or exclusive. In English, the most obvious manifestation of the distinction between inclusive and exclusive colour-terms is equivalent to that between basic terms and their non-basic equivalents. Red is inclusive, scarlet exclusive.[47] Where, as in English, there are basic and non-basic terms for all the potential hue categories, such a distinction is fairly obvious, at least to native speakers. There are more problems with Greek, but this only renders it all the more important to attend to context in the attempt to discern whether a term is being used with inclusive or exclusive intent, and the Table above has indicated that this is particularly important in considering colour in clothing.

The other aspect of colour-naming and categorisation emphasised by this approach is that of the boundaries between colours. Modern researchers explore this through mapping tasks, where the subject is asked to indicate **all** the samples that can be covered by a particular term. While the perceptual/physical basis of focal or elemental hues, and thus the degree of their dependence on nature (as opposed to culture) can be asserted, it is clear that colour boundaries at least are both arbitrary, and culturally/conceptually determined.[48]

Category boundaries are of at least as much significance in the communicative use of colour-terms as their focii. In English, for example, the denotations of 'red' and 'yellow' are not contiguous. If an English speaker wishes to describe an object which appears equally red and yellow, they will use the term 'orange.' The existence of this term, and the category it represents, mean that English speakers **never** have to decide between calling **an** orange 'yellow' **or** 'red.' If, however, a speaker of any one of the many languages which do not name or define this category, needed to describe an orange, this is exactly the choice they would have to make. To describe the colour of an object which English calls 'orange,' speakers of such a language would have several options: it may be said to be 'yellow,' or 'red,' or its colour may be named according to the metonym discussed above, or with a composite term – 'yellow-red.' Individuals will make various selections from these options.

The point is that, in this situation, it is entirely natural to find the same object named either 'yellow' or 'red' by different individuals – and crucially that this is **not** evidence of a **conflation** of the

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[46] See p.4-6

[47] cf. ἐρυθρὸς vs. φοινικὸς – note the etymology: the former shares the same Indo-European root with English 'red,' Lyons (1999:59, n.11). 'Scarlet' originates from terms used to describe textiles dyed with kermes, see n.44 & p.183

[48] See MacLaury for categories encompassing several elemental hues (1997:261-82) For Newton's largely arbitrary division of the spectrum, see De Grandis (1986:12-13) and s.v. Chambers (1954) 'rainbow.'

colour-categories 'yellow' and 'red.' It merely indicates that these categories share a boundary (as English 'yellow' and 'red' do not) and that the described object lies upon it

6. Conclusions

The intent of this chapter has not been to form definitive conclusions about the nature and use of Greek colour-terms (for to do so would itself require a thesis). It has been to suggest a variety of approaches that contribute to the creation of a framework, from the Greek conception of colour as it is revealed by philosophy and expressed by colour-terms, which can be applied in considering the particular evidence for colour in clothing.

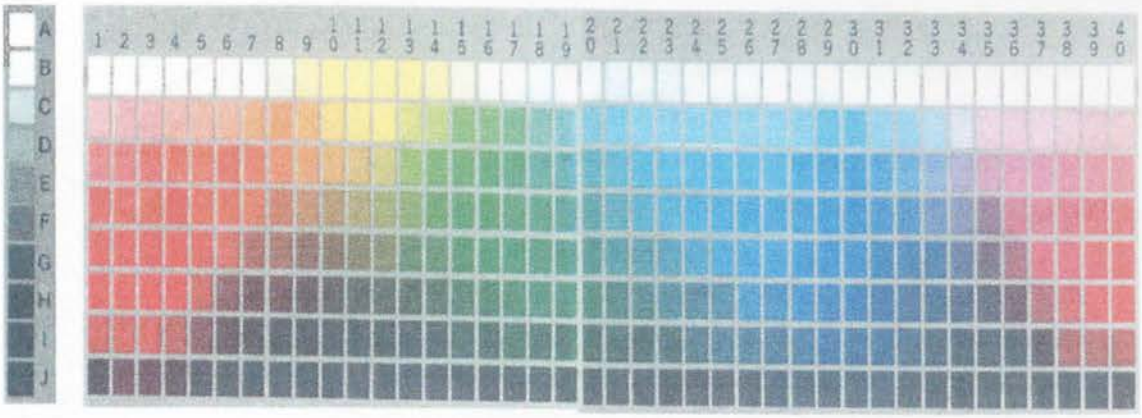
Specifically, the chapter has pointed out that the concentration of the BKH research tradition on 'basic' colour-terms is not relevant to the study of colour in individual languages, and that the primary utility of the BKH, in this case, is as an aid to understanding, in terms of modern colour-categorisation, the conflation of value and hue by certain colour-language systems. It has discussed the argument developed from philosophy with reference to its expression by two modern colour-spaces, pointing out that, again, the NCS provides the more consistent paradigm. The point of these discussions has not been that such colour-spaces accurately express Greek categorisation of colour: rather, to provide further confirmation that the conception expressed by the philosophical texts – unreconcilable with simple modern ideas of hue, and of colour interaction – should not be ignored or considered incorrect. Similarly, that this is reinforced by the fact that Greek colour language does, in many respects, appear to conform to the patterns abstracted from other languages by linguistic researchers.

The final part of the chapter has provided an outline survey of the relationship between general Greek colour-language (in philosophy) and the terms specifically applied to colour in clothing by the restricted bodies of evidence considered in the following chapters. It has emphasised that although primary colour-categories and terms are of major importance to the wider conception of colour, secondary categories and terms are of equal or greater importance to colour in clothing, and it has defined a number of separate categories of such terms. It has emphasised the reciprocity of the relationship between the language of colour and that of colour in clothing, and also the importance of the parallel processes of conceptual assessment of similarity and difference in colour, and of the inclusive and exclusive use of colour terms.

The reader may be pleased to know that this chapter is the high-water mark of the application of colour theory within this thesis. Many of the ideas discussed will not be specifically referred to again until the Conclusion, although they are integral to the researcher's approach to the material of the intervening chapters, and to the final conclusions themselves. Nevertheless, it has been necessary, not only to introduce the issues inherent in studying colour in another culture, but also to define the attitude of this research towards them. Reading previous studies of colour has convinced me that the subject cannot be approached **without** making assumptions, but that failure to define and fully explain what these are renders the conclusions and use of evidence utterly dependent on them. The approach of each researcher to

colour, especially in culture, is, because of the perceptual/conceptual nature of the subject, inherently individual, and therefore suspect. Obviously, I believe that my approach is justified, but it would seem an inordinate waste to stake the utility of years of research, and of 90,000 words, on that belief. And so, with complex concepts firmly in mind, we can now proceed to the first corpus of inscriptional evidence.

Fig.1 - The Munsell Array used by Berlin & Kay in colour naming studies



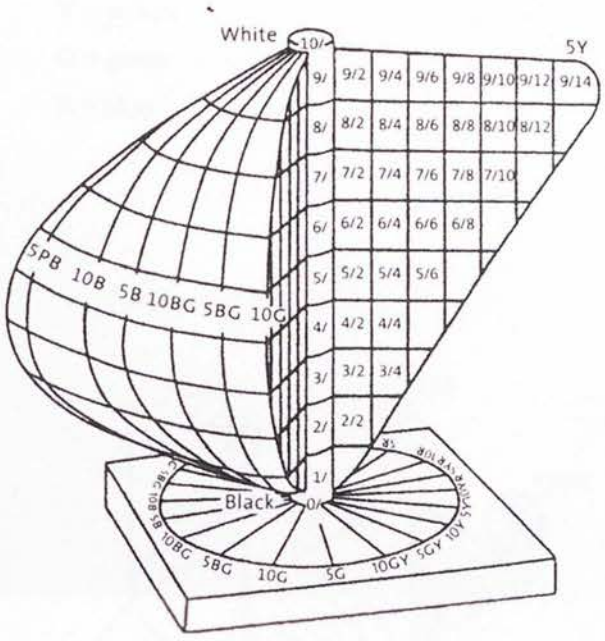


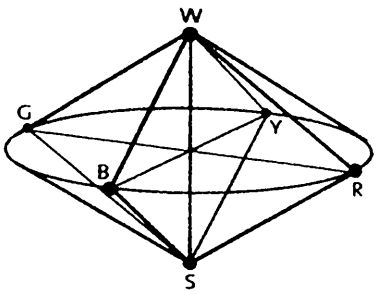
Fig.2 Diagram of entire Munsell Color-Space

In the array above, chips in columns 1-4 are 'red,' 5-8, 'yellow-red,' 9-12 'yellow,'13-16 'green-yellow,' 17-20 'green,' 21-24 'blue-green' and so on, through to 37-40 which are 'red-purple.' This can also be seen opposite on the bottom hue circle, and the vertical divisions of the solid itself.

Comparing the two figures, it can be seen that the central axis of Fig,2 is equivalent to the separate grey-scale of Fig.1, and thus that all of the chips in Fig.1 are of maximum chromaticity. Fig.2 illustrates the way in which all the colours above fade to grey within the colour-solid.

It is also notable that the different hues have their maximal points at different value-levels. This is most obvious for yellow, but it can also be seen that the 'most' red, blue and green chips also occur at differing levels.

Fig.3 – NCS Color-Space



It can clearly be seen from this diagram that the NCS color-space is more abstract. There are no colour figures here because assessment is perceptual, not purely visual. The diagram illustrates the interaction between the hue-circle, and the triangular cross-sections, whose description of colour is more clearly seen from Fig.4

W = white

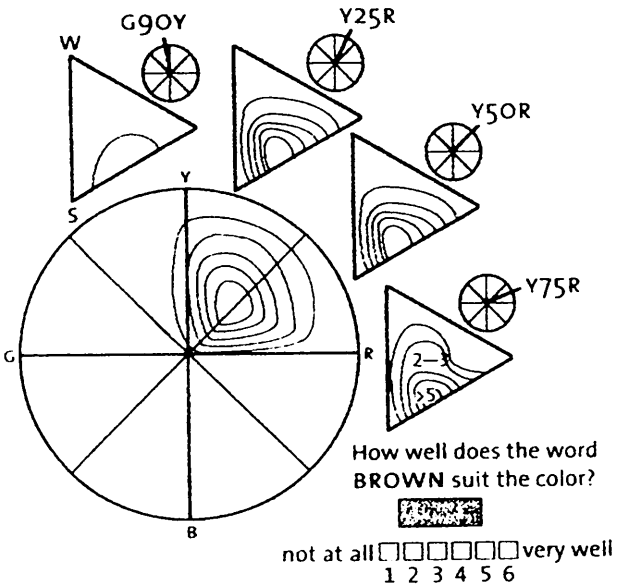
S = black (schwarz)

R = red

Y = yellow

G = green

B = blue



The circular diagram shows the hue – reference.

The triangular cross-sections show the value reference ascribed to 'brown' for a selection of the hues specified by informants.

The vertical sides of the triangles are the grey-axis (minimum chromaticity).

See Sivik (1997)

Fig.4 – NCS Color-Space in Use

Chapter Three: Colour in the Catalogues of Dedicated Clothing from Brauron.

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1. Preface

The introductory chapter explained that the main material of the thesis would be inscriptional, and this chapter presents the first of two bodies of inscriptions relating to clothing. This type of material is central to the thesis because it places colour in clothing in its social context: the reason it is considered against the background of other evidence is primarily that it does not itself explain or elucidate this placement. The regulatory inscriptions (subject of Chapter Seven) are particularly interesting from a social perspective, while the dedicatory inscriptions presented and discussed here are of equivalent importance in locating colour as an aspect of clothing.

Previous chapters have focussed on the Greek conception of colour and its expression through language. This chapter also concentrates on language, but this time as it represents the social and material existence of clothing. This massive body of text (the remains of the inventories of dedications from the sanctuary of Artemis at Brauron) offers the possibility of assessing the relative importance of colour as an aspect of Greek clothing. It is particularly significant because, unlike so many pieces of evidence about this subject, its single evidentiary context contains sufficient data to allow it to be submitted to a detailed analysis, as a self-contained source, with meaningful results. Such results can therefore be used for **true** comparison with evidence from other sources (since these are not integral to the analysis itself). Further, although these inscriptions do constitute an example of the representation of clothing through the medium of language, unlike clothing in literature, they do not consciously aim to represent its significance, which increases their value as comparative material.

Both these outcomes are dependent on a methodological approach which preserves the integrity of the material, while recognising both the problems and potential inherent in its representative and social context. For the purposes of this thesis, it will be argued that the appropriate approach is through the analysis of the 'catalogue as description,' and for this reason, as well as those outlined above, the chapter takes the form of a largely independent case study. It will be the work of future chapters to relate its results to the wider picture.

1. 1 Introduction

This chapter concerns the corpus of inscriptions commonly known as the Brauron Inventory.[1] Although fragmentary, and epigraphically complex, the combined text of these inscriptions recording garments runs to well over 347 lines.[2] A remarkably large proportion of the terms are either *hapax legomena*, or so rare as to preclude firm translation. The catalogue is, naturally, expressed in the form of a list, so that the meanings of many terms (which can often be reliably translated in contexts that suggest which of their various meanings is appropriate) remain opaque. Indeed, the syntax of the inscriptions is such that it is often impossible to tell where the description of one garment ends, and the next begins. Although there are a relatively small number of simple colour-terms (eight) there is a bewildering variety

[1] Linders (1972:6)
[2] See p.74-96 and esp. Table of Concordance, p.75

of terms which appear to refer to pattern or decoration.[3] Translation is rendered even more difficult by the frequent and often drastic abbreviation of words in some of the fragments.[4] In terms of communicative intent, to say that these inscriptions intend to record the dedicated items, while surely accurate, raises more questions than it answers: why are some of the garments described in detail, others by a single term? Why is the colour of some garments described, but not that of others? Why are the garments described in detail at all when almost all are distinguished by the name of their dedicant?

When I first began to study this corpus of inscriptions, I hoped to use them as evidence for the 'real colours' of 'real clothing.' That is, I hoped to treat them as a transparent record of the fourth century collection of dedications at Brauron. However, as the research progressed, it became increasingly apparent that such an approach was not tenable, either in respect of the more general topic of Greek conceptions and descriptions of colour, or in the specific context of these inscriptions. The general reasons are discussed above in reference to the subject of this thesis – 'colour in' not 'the colour of' Greek clothing. And when it comes to these inscriptions, no record can be considered transparent which cannot be defensibly, let alone accurately, translated. I have not provided a translation of the inscriptions in this chapter, and to my knowledge, no published translation exists.[5] Attempting a definite translation seems, in fact, to be worse than indefensible, since it limits the potential of these inscriptions to provide new data about Greek clothing.

If the Brauron inscriptions cannot be used as a transparent record, how else may they be studied? Linders' 1972 study is an exhaustive and definitive treatment from an epigraphical perspective, which there is no need to repeat.[6] The more I was impressed by the impenetrability of these texts, the more it seemed that the very quality of their opacity was an appropriate avenue of approach. For these inscriptions do not simply record garments, in the sense that tally marks record sheep, they describe garments. Description itself can be studied, and through such study reveal much, not only about the material reality of artefacts, but also about their social and cultural existence - especially true of the description of garments. The phrase 'the language of clothing' has become an accepted metaphor for the capacity of dress to express the social, cultural and psychological context of the wearer.[7] Certainly, clothing can be seen to signify in and of itself, in a way that can be appreciated through direct observation.[8] But it is also the case that the 'meaning' of dress is significantly elaborated through the reflective processes of social commentary on, and ascription of significance to, dress, and these processes take place through the medium of language.[9]

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[3] See below, p.101-119 for discussion, and Glossary, p.134-36, 138ff
[4] However, here again the list format (as well as the natural duplication of dedicants' names within the text) make such comparison a confusing and time-consuming affair).
[5] Cole provides a small section (1998:37) of *IG* II^2 1514, 7-38
[6] Linders, T. *'Studies in the Treasure Records of Artemis Brauronia'* Stockholm, (1972)
[7] Lurie (1980)
[8] See n.12
[9] See p.16, n.11

In short, my approach to these inscriptions has therefore been to consider, not simply what is said or recorded by these inscriptions, but the relationship between these two factors. This chapter is primarily devoted to considering how the garments are described, and why. Its focus is on the catalogue as social artefact, rather than as epigraphy, or a record of material reality. My analysis of the 'catalogue as description' was begun purely on the internal evidence of the inscriptions themselves, but in its later stages it makes use of the theoretical framework established by Barthes, which is discussed in detail below.[10] In order to look at the description of garments within the catalogue, it has also been necessary to attempt the reconstruction of the inscriptions as a catalogue, rather than as individual stelae.[11]

The broad aim of this chapter is to contend that this garment catalogue provides much more than a surviving written record of physical garments which have perished over the intervening centuries. It constitutes a remnant of the way in which *certain described features of garments (including, and perhaps especially, colour) encoded social and cultural meanings.* The 'language of clothing' exists on many levels: on the level of the 'real code,' which can be learnt through observation of dress habits: and on the level of the 'terminological code' where a word stands for a thing.[12] Both of these levels, in fact, are inevitably problematic for Greek clothing – we can neither observe the actual dress habits of the time, nor reliably understand the complex relationships between words and things. And yet, "impoverishment of the raw material, aside from being methodologically inevitable, has perhaps its own reward: to reduce the garment to its oral version is thereby to encounter a new problem . . . *What happens when an object, whether real or imaginary, is converted into language?*"[13]

However, the 'language of clothing' also has another level, which has been called the vestimentary code, where the real code is not only conveyed by the terminological, but elaborated by and within it. "Is there any system of objects, a system of some magnitude, which can dispense with articulated language? Is not speech the inevitable relay of any signifying order? If we go beyond a few rudimentary signs (eccentricity, classicism, dandyism, sport, ceremony), can clothing signify without recourse to the speech that describes it, comments upon it, and provides it with signifiers and signifieds abundant enough to constitute a system of meaning?"[14] The contention of this chapter is that it is possible to look at the garment catalogue from Brauron as an instance of a vestimentary code, and that such a study can offer useful insights into both the terminology of the catalogue, and the social and cultural, as well as material, existence of the objects it records.

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[10] See p.120-22

[11] Linders (1972) provides detailed reconstruction and discussion of the epigraphical origin of the corpus of inscriptions in six original stelae.

[12] Barthes (1990:28-33)

[13] These catalogues, are a rare instance of such a conversion, as undertaken for real objects and practical purposes. Barthes, *'The Fashion System'* (1990 [1967]:12) All references are to the 1990 edition. The original date and language of the work should be understood.

[14] Barthes, (1990:xi)

As an undertaking, such a study involves a number of preconditions. Firstly, the creation of a text, annotated with the differences between the parallel sections, but not including duplications.[15] Secondly, the creation of a glossary of the garment terms, to look at categories of terms, and make the volume of disputed terms more manageable. Such a glossary, with a basic division into categories, also clarifies that the garment terms fall into a small number of basic type categories – terms for types of garment, for types of decoration, for colours, fabrics, and persons. Thirdly, the tabulation, rather than translation, of the descriptions, based on the glossary and categories. The tabular form allows clearer comparison and cross-referencing of the garment descriptions, with each other and with the text, and separation of the complete from fragmentary descriptions.

These then are the bases of all my subsequent analysis of the descriptions of garments in the catalogue. The form of the chapter is as follows. Firstly, a detailed discussion of the difficulties of the text, and of the rationale behind the creation of this edition: a concordance explaining its relationship to previous published editions, and the internal and external relationships of each section of the inscriptions: finally, the edited text itself. Secondly, a discussion of the catalogue as an administrative tool, and of its context as a social artefact. Thirdly, tabulated summaries of the garment descriptions, and analysis of their possible implications for our knowledge of Greek garments. Fourthly, a theoretical exploration of the relevance of Barthes' concept of the 'vestimentary code,' its operation, and application to these descriptions. Finally, a section of conclusions relating description within the catalogue to the wider spectrum of Greek clothing. The Glossary has been placed in an appendix for easy reference.

2. The Texts:

The 'Treasure Records of Artemis Brauronia' (which as extant relate to dedications made in the years 349/8, 348/7, 347/6, 346/5, 345/4, 344/3, 343/2, 342/1, 338/7, 337/6, 336/5[16]) are perhaps the single most significant body of inscriptional evidence for Greek clothing of the late Classical period. The 13 fragments, thought (Linders, 1972:6) to have come from six separate *stelae*, are all that remains of the catalogue as it existed in six separate years of the second half of the fourth century.[17] Even in this fragmentary form, the catalogues comprise a considerable body of text, and although the list format renders them syntactically simple, the overall complexity is increased by the existence of a significant number of parallel sections of text. These appear to have originated in the fact that each stele once contained the complete text of the catalogue, which was reiterated and updated at each successive accounting.

Considering this catalogue as a text to be read, rather than an inscription to be reconstructed (an angle comprehensively and definitively covered by Linders) highlights a number of its difficulties. Although the list format does not admit of much grammatical or syntactical complexity, relative simplicity

[15] See Table of Concordance, p.75
[16] Linders (1972:5, 67-70)
[17] See p.97-100 for discussion of dating.

in this area is balanced by lexical complexity. Nevertheless, the potential rewards of being able to access this catalogue as a text, as well a physical example of fourth century Attic epigraphy, are considerable. Students of dress and material culture must see such a catalogue as a rare and valuable insight into the material reality of fourth century clothing, and an unusually comprehensive record of dedication habits for such items, which so rarely survive for archaeology to recover. Such studies, using these inscriptions to illuminate patterns of dedication, and the physical nature and variation of the actual dedicated garments, have included those of Foxhall & Stears (1999) and Cole (1998).

Both the above-mentioned perspectives focus on the level of the object – either the inscription as object, or the recorded objects of dedication. However, a catalogue, by its very nature, can also be considered as a social artefact in its own right, and not simply the physical record of an actual collection. This is to say that the manner in which a catalogue describes and identifies its objects, must be conditioned by the social and cultural existence of these objects, as well as their physical or material characteristics. It is immediately clear from even the most superficial reading of the Brauron inscriptions that the text **describes** the dedicated objects. It is on this aspect of these inscriptions – the catalogue as description (rather than as inscription, or as a 'transparent' record of material dedications) – that this chapter focuses.

Such a focus necessitates a number of areas of consideration, which have been outlined above. The most fundamental of these is the detailed analysis of the individual descriptions of garments and their inter-relationships. And since the necessary pre-requisite for such an analysis is the catalogue itself, this is considered first.

It goes without saying that from the perspective of the 'catalogue as inscription,' the versions provided by the *Inscriptiones Graecae*, and by Linders, represent the acme of current scholarship. However, the aim of such studies has been to reconstruct and annotate the inscriptions, not to re-create the catalogue as such, or in usable form. It is my contention that in order to do so, in order to study this catalogue as a social artefact, it is necessary to see these inscriptions in ways more commonly applied to ancient literature than epigraphy. Modern editions of ancient drama, for example, are commonly based on the comparison, and to a certain extent, conflation, of the extant manuscript versions of the texts, each of which will have its copyist's errors, omissions, etc. The aim is to provide an integrated text, which is as complete as possible, and can subsequently be read, either in the Greek or in translation, by non-specialists. While the editing process inevitably involves a certain sacrifice of completeness through the process of selection, this is accepted as being balanced by the benefits provided by a 'user-friendly' text. These include not only wider accessibility, but particularly the possibility of approaching and appreciating the text in a form which is closer to the original intent, and in which the necessity of appreciating textual subtleties need not interfere with the reader's appreciation of literary quality or the subtleties of meaning or artistry.

In order to facilitate the study of the 'Treasure Records of Artemis Brauronia' as a catalogue, I have engaged to a limited extent with the process of creating an 'edition.' In doing so, I have taken a

middle road, between fidelity to the fragments of inscription which are the physical remnants of the catalogue, and the reconstruction (necessarily partial) of the catalogue as a social artefact. Studying these inscriptions in their published forms, I found the parallel passages to be the main obstacle to fruitful analysis. Such repetition interferes not only with an appreciation of the scope and variety of the original collection of dedicated garments, but also (and of particular importance to the subject of this thesis) of the range and occurrence of colour and decoration terms used to describe them.[18] Nor was it a feature of the original catalogues, being introduced by the fact that what we now possess are fragments of several annual versions of the catalogue.

In fact, these inscriptions present a particular dilemma because the fragments indisputably come from different versions of the catalogue. However, these versions were, very probably, materially different only in that they each included dedications made in the current year, and omitted those which had been removed from the sanctuary due to the necessary and constant circulation of the collection.[19] Yet the remains of the individual *stelae* are too fragmentary, compared with either their original form, or with the whole corpus which remains from the *stelae* as a group, to permit useful study of the catalogue other than through conflation of the data from these several years. I would argue that since these fragments are usually considered in conjunction anyway, there is value in producing and using an integrated edition, which at least acknowledges, details, and systematises the conflation.

2.1 The Current Edition:

The main difference therefore, between the inscriptions as they are published in *IG* II^2, and the edition included in this chapter, is that all the parallel passages have been identified, compared and marked, and that only one of each of the parallel versions is included. The table of concordance on p.75 contains full details of all such sections, their relationship to each other, and to the published texts, but the text itself contains only one version of each. Where parallels exist, I have selected the most complete continuous version from the *IG* texts, and included annotations to indicate all instances of deviation which appear in the other versions. I should like to emphasise that I have not altered the sections of text themselves, only selected between them and noted where the alternatives differ.

My aim has been to produce a version of the garment catalogue that is as complete as possible without including duplication.[20] Admittedly, this aim has implications which impact on the arrangement of the text as a whole. It has required me to order the fragments so that their inter-relationships can be consistently described. Ideally, one would like to be able to place not only the fragments, but also their division into annual lists, in chronological order, but this is not possible, though perhaps it will become so on the publication of the *stelae* from Brauron itself.[21] Although many of the fragments contain dates (in the form of the archon-year of dedication of the recorded objects) these dates can only reliably be applied

[18] The impact of this edition on problems of translation will be discussed p.101-119
[19] See p.99ff
[20] The necessity and desirability of this is made clear below, p.102

to continuous sections within which they appear, and not necessarily to the fragment as a whole. In addition, the situation is complicated by the appearances of parallel passages in apparently dissimilar orders in different fragments. Linders (1972:5, 67-70) has made some attempt to locate the extant lines of text in their relative positions on her *stelae* of origin, but the whole question is complicated by the fact that the section of annual dedications for each year differed in length by an indeterminate amount.[22] Because of such difficulties, the fragments appear in this edition in approximate chronological order, but with regard also to continuity and comprehensibility.

The table of concordance contains details of the occurrence and positions of datable archon-names in both the published *IG* versions and the current version, but I do not contend that the order in which the fragments appear in my edition reconstructs their original order of appearance in the catalogue. Also, although the lines of this edition are numbered consecutively, this has been done for ease of reference to this edition throughout the analysis. (Indeed, one of the major benefits of an integrated edition of the separate inscriptions is that it allows easy reference to specific terms and descriptions without repeatedly having to determine their appearance in different line positions of as many as three parallel passages). It is not intended to suggest unbroken continuity in the original catalogues.[23]

In short, the text as it appears in this chapter is an edition which aims at the reconstruction (albeit partial) of the 'text as catalogue' rather than of the inscription. As such, it has advantages and disadvantages when compared with the published texts, and makes no claim to replace them. It forms the basis for the analysis of description within the catalogue, and as such will be justified by its utility in that analysis. I hope, however, that it is also somewhat more accessible to the reader, without detailed study, than are the fragments alone.

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[21] See n.44

[22] Which cannot now even be guessed, since neither the chronological order or relative spacing of the original *stelae* can be definitively established, see p.97-99

[23] See below, Sect.3 for the catalogue as a single evolving entity as well as an annual manifestation. I am aware that there was never a single physical catalogue, but I argue that the catalogue, in use, would always have been the comparison between one year's version and the next. A fragmentary play is still a play, and not a novel or a history, and has a context as such which cannot safely be ignored – it is the context provided by function that I aim to explore here, and p.97-99

Order of Appearance of Inscriptions

Page	IG II Number (Lines)	Continuous Line No.
65-69	**1514 (1-74)**	1 - 74
69	**1516 (46-52)**	75 - 81
69-70	**1517B (162-183)**	82 - 103
70-71	**1524B (129-134)**	104 - 109
71-72	**1517B (120-139)**	110 - 129
72	**1524B (155-156)**	130 - 131
72-73	**1518B (48-65)**	132 - 149
74	**1518B (66-74)**	150 - 158
74-76	**1524B (176-238)**	159 - 197
76-78	**1521B (46-73)**	198 - 225
78-79	**1522 (3-29)**	226 - 252
80-81	**1523 (1-29)**	253 - 282
81	**1525 (1-4)**	283 - 286
82-83	**1528 (2-26)**	287 - 311
83	**1529 (2-32)**	312 - 342
85	**1530 (1-6)**	343 - 348

Table of Concordance

IG II^2 number	Line numbers of garment catalogue	Linders' stele number	Lines incl. in this edition	Lines excised in this edition (reason)	Consecutive line numbers	Dates (*IG* line Nos.)	Dates (Line Nos.)
1514	1 - 74	One	Complete	-	1-74	349/8-344/3 @ 7,11,12,24,34,59	= *IG* nos.
1515	1 - 33	Two	-	1 - 33 (= 1514, 7 - 41)	-	-	-
1516	1 - 52	Three	46 - 52	1 - 45 (= 1514, 22 - 74)	75-81	-	-
1517B	118 - 184	Four	120 – 139 162 - 184	140 - 161 (= 1514, 36 - 72)	82-103 110-129	343/2 @ 134	@ 109
1518B	48 - 92	Four	48 – 65 66 - 75	77 - 91 (= 1514, 61 - 74)	132-149 150-158	343/2 @ 120	@ 110
1521B	46 - 73	Five	Complete		198-225	342/1 @ 65	@ 217
1522	1 - 29	Three	3 - 29	1 – 2 (fragmentary)	226-252	338/7-336/5 @ 10, 14, 12	@ 234, 237, 244
1523	1 - 29	One	Complete	-	253-282	-	-
1524B	129 - 238	Six	129 - 134, 155 - 6, 176 - 179, 205 - 238	135 – 154 (1517B, 120-139) 157 – 174 (1518B, 48 – 65) 175 (fragmentary) 179 - 204 (= 1523, 7 - 29)	104-109 130-131 159-197	-	-
1525	1 - 18	Five	1 - 4	5 - 18 (=1524B, 129 – 46)	283-286	-	-
1528[a]	1 - 26	Six	Complete	1 (fragmentary)	287-311	-	-
1529	1 - 32	Six	Complete	1 (fragmentary)	312-342	-	-
1530	1 - 6	Six	Complete	-	343-348	-	-

[a] 1527 is omitted entirely since Linders does not attribute it to Brauron (1972:6)

Brauron Catalogue Composite Inscription

1514

1 . . . . . νον ποικίλον 1

. . . . . ἀμόργινον 2

. . . . . ν . . ι κάλυμμα 3

. . ταραντῖνον προς . ε 4

5 σταθμὸν ἐπεγέγραπτο . . . . . Ἰφ . . .νη σ. 5

. . . . . η · Αρχιππη κατάστικτον χειριδωτὸν ἐμ πλα- 6

[349-8] ισίωι · ἐπὶ Καλλιμάχου ἄρχοντος · χιθωνίσκος κτεν- 7

ωτὸς περιποίκιλος, Καλλιππη · οὗτος ἔχει γραμματ- 8

α ἠυφασμένα · Χαιρίππη, Εὐκολίνη κατάστικτον ἐμ 9

10 πλαισίωι · Φιλουμένη χιτῶνα ἀμόργινον · ἐπὶ Θεοφί- 10

[348-7] λου ἄρχοντος · Πυθιὰς καταστικτον ξυστιδωτόν · ἐπ- 11

[347-6] ι Θεμιστοκλέους ἄρχοντος · χιτωνίσκος ἁλουργὸ- 12

ς ποικίλος[α] ἐμ πλαισιωι, Θυαιν[β] και Μαλθακη ἀνέθη- 13

κεν · χιτωνίσκος ποικιλος ἐμ πλαισιωι ἁλουργός, ν 14

15 ο. τασω. α. Εὐκολινη ἀνέθηκεν · Φιλη ζωμα · Φειδυλλα 15

ἱμάτιον λευκὸν γυναικεῖον ἐμ πλαισιωι · Μνησὼ βα- 16

τραχιδα · Ναυσὶς ἱμάτιον γυναικεῖον πλατυαλουρ- 17

γὲς περικυμάτιον · Κλεὼ ἀμπέχονον · Φίλη περιήγητ- 18
ον · Τεισικράτεια κάνδυν ποικίλον · Μέλιττα ἱμάτι - 19
20 ον λευκὸν και χιτωνισκον ῥάκος · Γλυκέρα Ξανθίππ- 20
ου γυνὴ χιτωνίσκον περιήγητον ἐκπλύτωι ἀλουργ- 21
εῖ και τριβώνια δύο · Νικολέα χιτῶνα ἀμόργινον, πε- 22
ρι τῶι ἔδει · κατροπτον ἐλεφαντινην λαβὴν ἔχον, πρ- 23
[346-5] ὸς τῶι τοιχῶι. Αριστοδάμεα ἀνέθηκεν · ἐπὶ Αρχιου, Α- 24
25 ρχεστράτη Μνησιστράτου Παιανιῶς θυγάτηρ χιτῶ- 25
νις πυργωτὸν ἐμ πλαισίωι · Μνησιστράτη Ξενοφίλου 26
ἱμάτιον λευκον παραλουργές. τοῦτο τὸ λιθινον ἔδ- 27
ος ἀμπέχεται · χιτωνίσκιον καρτὸν παιδεῖον ἀνεπ- 28
ιγραφον. παρυφὴν ἔχει θερμαστίν · Ξενοφάντη χιτω- 29
30 νίσκον ἐξιστων κτενωτόν, οὗτος ἐπὶ τῶι κανῶι · Νικ- 30
οβούλη ἐπίβλημα ποικίλον καινόν, σημεῖον ἔχει ἐ- 31
μ μέσωι, Διόνυσος σπένδων καὶ γυνὴ οἰνοχοοῦσα · Αρ- 32
ίστεια ἐπίβλημα ἐμ πλαισίω, ἐμ μέσωι ἔχει ζωια δ- 33
[345-4] εξιούμενα · ἐπὶ Εὐβουλου ἄρχοντος · ἀμπεχονον, Αρτ- 34
35 έμιδος ἱερὸν ἐπιγεγραπται, περὶ τῶι ἔδει τῶι ἀρχ- 35
αίωι, Θεανώ · ἀμπέχονον περὶ τῶι ἔδει τῶι ἀρχαίωι, Π- 36

---

[a] cf. 1515, 6 which has περιποικι

εντετηρις · ταραντῖνον περὶ τῶι ἔδει τῶι ἀρχαίωι, 37
Θεανώ · κατάστικτον διπτερυγον περὶ τῶι ἔδει τῶι 38
ἀρχαίωι · χλανὶς καρτὴ ἀγραφος παράβολον ἔχουσα · 39
παιδίου χλανίσκιον λευκὸν καρτον. ἱερὸν ἐπιγέγ- 40
ραπται Αρτέμιδος. παράβολον ἔχει φοινίκιον · χιτ- 41
ωνίσκος κτενωτὸς περιποίκιλος. περὶ τῶι ἀγάλμα- 42
τι τῶι ὀρθῶι · χιτωνίσκος κτενωτὸς περιήγητος · λή- 43
διον ἀνεπίγραφον · Ξεναριστη Αντιφῶντος γυνὴ Πε- 44
ριθουδου χιτωνίσκον κτενωτὸν · λήδιον · χιτωνίσκ- 45
ος λευκὸς πυργωτὸς παρακυμάτιος πλατυαλουργὴ- 46
ς ἀνεπίγραφος · ἱμάτιον ἀνδρεῖον, Αργονιας ἀνέθη- 47
κεν · βατραχις. ἐγκυκλον ποικίλον,[γ] Αθηναίς ἀνεθηκ- 48
εν · ἁλουργὶς ξενική. ῥάκος. ἀνεπίγραφος · Μνησιστρ- 49
άτη ἀμπέχονον ἐμ πλαισιωι · Αντιβιου γυνὴ Φείδυλ- 50
λα χιτώνιον ἀμόργινον ἁπλούν · Καλλίππη χιτωνίσ- 51
κον κτενωτόν · Νικω χιτωνίκον περιήγητον Αρτέμ- 52
ιδι · Ἱπποδάμη Θεοτελους Αλαιῶς χιτωνίσκον ἡμιυ- 53
φη ἐμ πλαισιῶι καὶ κρόκην καὶ ἐπια · παραλουργιδι- 54
ον χιτωνίσκου ἁπλοῦν . . . . ιππη ἀνέθηκεν · Φανοστρ- 55

[b] See Linders (1972:11) for discussion, questioning reconstruction as a name.

ατη κατάστικτου . . . . . ἁλουργιδος . . . 56
. . ην · Αριστὼ κατάστικτον . . . . . ν · ἐν ὀθονίωι ἐρι- 57
α μαλακά. Ηδύλη · κροκωτὸν χιτωνισκον[α] παιδίου ἀγρ- 58
[344-3] αφον · Χαιρεστράτη χιτώνιον ἡμιυφὲς, ῥάκος · ἐπὶ Λυ- 59
60 κισκου ἄρχοντος · Παρθένιον Ξενοκράτους γυνὴ κρ- 60
οκωτὸν διπλοῦν · χιτώνιον ἀμόργινον. ἀνεπίγρα · 61
[24]Φιλη κροκωτὸν διπλοῦν ἐμ πλαισίωι · Φιλ- 62
ουμενὴ Μνησιδήμου Λαμπετρέως γυνὴ χιτώνιον ἀμόργινον 63
ἰσοπτυχές · Καλλιστὼ χιτώνιον ἀμόργινον διπλοῦν · 64
65 χιτώνιον ἰσοπτυχὲς ἀμόργινον ἀνεπιγραφον · χιτ- 65
ώνιον ἰσοπτυχὲς διπλοῦν ἀνεπιγραφον · χιτων 66
. . . . . διπλοῦν · . . . . . κατάστικτον 67
. . . . . ταραντῖνον . . . . . ταραντῖνον . 68
ἱμάτιον λευκὸν παραλουργές, ἱερὸν ἐπιγέγραπτα- 69
70 ι · Κλεινὼ Εξηκέστου ταραντῖνον · Ασκλεπιοδώρα πα- 70
ρυφὲς ἐν κιβωτίωι κατάστικτον τρύφημα π 71
. . . . . ον ἡμιυφής καὶ κρόκην μ 72

---

[g] cf. 1517B, 154 which has περιποικιλον

[a] Linders (1972: 19) suggests ταραντινον for χιτωνισκον

[24] The new reading of by Linders (1972:45) for 1518, 75-87, which is parallel to this section of text, 1514, 62-73 (and therefore also to 1516, 35-44) adds nothing significant for colour, as is also the case for the new reading of 1516, 36-42 (1972;26)

. . . . . ο . . . . . χ 73

74 . . . . . χιτων 74

1516[25]

46 κην μ . . . . . ε . . λι . . . . φ . . . ν Δημοκ 75

. . . . . πλατυαλουργη . . . ο . . . . χιτωνίον 76

. . . . . ο ΔΟ Ι ΟΤ Ε . . . . . χιτωνίον 77

. . . . . Θορικί · γυνὴ κτ 78

50 . . . . . γυνὴ χιτωνίσκον . . . κτενωτόν 79

. . . . . ου θυγάτηρ ἱμάτιον 80

52 . . . . . κροκωτόν 81

1517B

162 . . τρύφημα κροκωτόν - 82

. . . . . ἱμάτιον - 83

. . . . . κλέους Λ - 84

165 . . ἀμόρ · ἐμ πλαισίωι - 85

. ἁλουργίδα ἐν Ι - 86

. . . ους γυνὴ κατ - 87

. . . α ἔπεστιν · δ - 88

. χιτωνίσκον περι - 89

. . Φανοσρτάτου - 90

. . . εα Στροίβου - 91

ἀμόργι ; Κλεινώ - 92

. . . ἁλουργὲς Ν - 93

. . . . ως γυνὴ χιτων - 94

κατειργας ; Σω - 95

. . . Φανοδίκου σ - 96

. . . . . ενα Φαιν - 97

. . . . . στυππινο - 98

. . . . . τιμος νεωκόρος - 99

. . . . Γνάθαινα - 100

. . . . . στη Μο - 101

. . . . . όθη Μυ - 102

. . . . . να Α - 103

1524B

. . . . . κεκρύφαλον λευκον πεζίδα ἔχον- 104

τα . . . . . ἀνεπίγραφ ; λασί ; ρακ ; 105

[25] 1514, >72 and 1516, >46 are parallel texts, therefore I have appended the concluding seven lines of

χιτώνιον . . . . . γυνή · σινδον- 106

ίτης ἀνεπίγραφ ; ἀμόργ χιτωνίσκον μήλινον[α] 107

[343-2] . . . . . παιδίου χιτώνιον διπλοῦν λ- 108

134[26] ευκ ; ἀνεπίγραφον ; ῥακ ; ἐπὶ Πυθοδότου 109

1517B

[343-2]

120 Χαιρεστράτη χιτώνιον ἀμόρ- 110

[136] ἐμ πλαισί ; Αρχεστράτη παρυφὲς ἐμ πλαι 111

ἐπτυγμένον · Τιμοκράτους γυνὴ χιτωνίσ- 112

κον ποικίλ ἐμ πλαισί ; Λύσιλλα χιτωνίσ- 113

κον λευκ ἐμ πλαι ; Καλλίππη ἱμάτιον παι- 114

125 δεῖ ; παραλουργ[α] ; Εὐβούλη χιτώνιον στύ - 115

[141] ππινον[β] · Πανθηρὶς χιτωνίσκον πλατυαλο - 116

υργῆ[γ] · Αγνοδήμου γυνὴ χιτωνίσκον στύππ - 117

ινον[δ] · Χρυσὶς χλανίδα ἀνδρεί ; Αριστομά- 118

1516 here. I am not suggesting that the fragmentary sections of text are necessarily parallel also.

[a] Linders (1972:59)

[26] The fragment labeled 1524, from which the first lines here come, is a long one. For much of its duration, it is not only parallel to, but virtually identical to sections of 1517 and 1518B, which differ only in containing fewer abbreviations. The three texts have been used together in epigraphical reconstruction. See Linders (1972:1-6) Where there are no significant differences, I have given here the texts, including new readings, of 1517 and 1518. However, for the sake of simplicity, I have also given the equivalent line numbers for 1524 in brackets throughout. This section is equivalent to 1524, 135-154.

[a] 1524 adds ῥακ at this point.

[b] As above

[g] As above

[d] As above

χη χιτωνίσκον κτενω ; Μελίτη χιτωνίσκ - 119

130 ον ἀνδρεῖ ; ἡ αὐτὴ ἕτερον χιτωνίσκον ἀν- 120

[146] δρεῖ ; . . . . . χιτωνίσκον περιποίκιλον[27] 121

. . . . χιτωνίσκος παραλουργής ἀνεπίγρ - 122

. . . . . ολέμη κάλυμμα συνεραμμένον · Α 123

. . . . . ταραντῖνον · ἐπὶ Σωσιγένους · Φιλό - 124

135 δημος ἐπιστατ . . . . . Καλλιστομάχη χ - 125

[151] ιτωνίσκον λευκὸν . . . . . πυργωτόν · τρυ - 126

φημα . . . χιτωνίσκον βατραχε ; μεσοποί - 127

κιλ . . . . . ΜΥΝΝΗΣΙΣ ἱμάτιον λευκον . 128

139 . . . . . ἐμ πλαισί ; Σωτηρὶς χιτων . . . [28] 129

1524B

155 ιτων[29] . . . . . λα ἁλουργ . . . . νητ 130

. . . . . ν ῥάκος. . . . . Ι Λ Σ 131

1518B

48 . . . . . Δ Ι Λ Ο 132

[158] . . . . . ταραντῖνον Ρ Α Κ Ω 133

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[27] New reading of next eight lines by Linders (1972:40)

[28] End of Linders (1972:40) new reading. In that new reading, she notes the loss of two lines between 1517B, 139 and 1518B, 48. Here, the two lines of 1524B which separate the parallel sections are given.

50 . . . . . νος Αχαρ ; ἁλουργ- 134

[160] ίδα . . . . . Φράσιλλα Αντιχάρ - 135

. . . . . χιτωνίσκον γλαυκειοῦν · Φαναγ - 136

όρα Κ . . . . . γυνὴ ; ἱστον ἐρεοῦν 137

ἡμιυφῆ καὶ ἔρια καὶ κρόκην[α] · Οἰνάνθη κατ - 138

55 άστικτον ἐν κιβωτίωι · χλανίσκιον παιδ - 139

[165] εἶ ; Νικομάχη · Νικοπτελέμη Καλλίππου γ- 140

υνὴ ἔρια μαλακὰ ἐν καλαθίσκωι ·[30] Μύρτα ζω- 141

μα γυναικε ; ἐμ πλαισιωι ; πλατυαλουργὲ - 142

ς · Καλλὶς ἔρια κατειργασμένα μαλα[β] ; ἐν κα- 143

60 λαθὶ ; Αρχίππη ἱμάτιον παραλουρ ; Δημον - 144

[170] ίκη χιτωνίσκον πλατυαλουργῆ · χιτωνίσ - 145

κος γυναικεῖος ; ἕτερος πλατυαλουργῆς 146

ἀνεπίγρα ; τάδε παρέδοσαν ὄντα τωι ι - 147

[173] ερῶι ἐν δὲ τῆι στήληι οὐκ ἐνόντα · Αριστὼ- 148

65 χιτώνιον ἀμόρ ; Αρχεστράτη χιτώνιον ἀ - 149

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[29] Equivalent to χιτων in the previous line. At line 48 of 1518B (parallel to line157 of 1524) Linders' new reading of the text (as above, 1972:40) is again given, which continues to line 57 (1524B, 166).

[a] 1524 duplicates these three words.

[30] End of new reading, see n. 9 above

[b] 1524B, line 169 has μαλακὰ

1518B[31]

66 μορ ; Αρχίππη χιτώνιον στύππινον ῥακω · 150
Αρισταγόρα Διοδώρου ἱμάτιον ἡμιύφαν 151
γυναι ; καὶ ἔρια · . . . . . όα κατάστικτ- 152
ο τρύφημα, ῥάκος . . . . . χιτώνιον ἀμό - 153
70 ργι ; ῥάκος · χιτώνιον ἀμόργι ἕτερον ἀνε - 154
πίγραφον ἔχον παράβολον · . . . ἔρια γλα- 155
υκέα ἐν καλαθίσκωι . . . . . Νι- 156
κομάχου Κλεα 157
74 .χιτων 158

1524B

176 . Λ . Λ . . . . . .α Λυσικρά- 159
του Φρεαρρ ; κατάστικτον ῥάκος τρίχαπτο - 160
ν ψιλόν, πασμάτια ἐπίτηκτα ἔχον παρὰ τὴν π- 161

179 εζίδα ; ΠΙΙΙΙ ; σαθμ ; ΙΙ ;[32] [Φιλονίκη χλανίδα ἐ- 162

[31] Linders (1972:39, n.40) indicates that the parallels between 1524 and 1518 cease at lines 174 and 65 respectively. However, 1518 continues for nine lines before becoming parallel to 1514 (1972:9) and these lines are not duplicated elsewhere. They are therefore given here, although it is not my intention to suggest that this is where they belong from an epigraphical point of view.

[32] From this point to the point marked by the next note, the text of 1524 duplicates that of 1523, lines 7-29, given below, and is therefore omitted. The three single word additions are similarly marked above.

204 ἔθη[33]] ; Λυσιμάχη κάλυμμα · κανδυν, τὸ ἀγαλμα ἔχει 163
Φίλη Δημοχαρίδου γυνή · ἱμάτιον λευκ ; περ - 164
ι τῶι ἀγάλματι, ῥάκος, ἔνκυκλον λευκ ; ἀνεπ- 165
ίγραφ ; περὶ τῶι ἀγάλματι τῶι ἑστηκότι, ῥά - 166
κος, χιτωνίσκος περιήγη ; ῥάκος, κατάστικ - 167
τος ξυστιδωτ ; ταῦτα Νικομάχη ἀνεθηκε · Ξε - 168
210 νοκράτεα ἱμάτιον λευκὸν καὶ χιτώνιον · Με - 169
νίππη χιτῶνα λιτὸν ἀμόργι ; Φαιναρέτη χι - 170
τωνίσκου κτενωτοῦ πτέργας, ῥάκος · Νοικομ - 171
άχη χιτωνίσκον ἡμιυφῆ, ῥάκος · Χρύσιλλα κρο - 172
κωτόν · Αρχίππη διπτέργον ἀμόργι ; Ἱππίσ - 173
215 κου θυγάτηρ χιτωνίσκον περιήγη ; περὶ τω - 174
ι ἀγάλματι · Ἱππάρχη χιτῶνα ἀμόργι ; Ολυμπ - 175
ιὰς κάνδυν ἀμόργι ; περιποίκιλ ; Αριστάρ - 176
χου γυνὴ παρυφές · Σοστράτου γυνὴ ἀμπεχον - 177
ον · Ηδίστη Πολυεύκτου γυνὴ κάνδυν λινοῦν 178
220 ποικίλ ; βατραχειοῦν · παρυφὲς ποικίλον ἡ 179
αὐτή · Θεανὼ Δημαρέτου γυνὴ παρυφές 180
. . . . . στύππι ; ῥάκος · Οἰνάνθη 181

[33] See above.

. . . . . ἔνκυκλον λευκόν 180

. . . . . περὶ τῶι ἀγαλματι 183

225 . . . . . ; Ο Ε 184

Κ Ι . . Π Ε Ρ 185

ν ταραντῖνον . . . . . περὶ τῶι ἔδει τῶι 186

ἀρχαί ; χ . . . . . χιτ- 187

ώνιον ἰσοπτυχές 188

230 γράμματα 189

ἡμιυφῆ ε . . . . . ἀλ - 190

ουργῆ ἐν 191

ἐμ πλαι ; . . . . . πτέρυ - 192

γα ἡμιυφῆ 193

235 κροκωτὸν . . . . . ἀμ- 194

όργι ; ἰσοπτυχ . . . . . ἀμ- 195

όργινον . . . . . λευ - 196

238 κὸν ἐν κιβωτίωι . . . . . 197[34]

1521B

46 - - - - - - - - - [8] σι . . . ων 198

[34] Lines 239-246 concern other types of offering, and so are not included here.

- - - - - - - - - [7] ι πλατυα - 199

- λουργ - - - - - [5] ον παρακ - 200

- υμάτιον - - - - [4] Η Λ . Ν Ο . Ε 201

50 - - - - - [5] ἑτερον κατάσ - 202

- τικτον - - - - [4] ενα Θεοδότ - 203

- ου - - - - - [5] Υ Β . . . . . [6] 204

- - - - - - - - [6] . Ι Α . . . . Ν Ι 205

- - - - - - - - [7] Ο Υ Μ Σ . . . Ι 206

55 - - - - - - - - - - - [10] Ι Μ 207

- - - - - - - - - [8] ἐμ π - 208

λαισίωι - - - - [4] Λ Ο . . ἐμ π- 209

λαισίωι - - - - - [5] Ε . . . Λ . 210

- - - - - - - - [7] Λ Η . Σ . . . 211

60 - - - - - - - - - [8] Ρ Ι Λ . . . 212

- - - - - - - - [7] Ο Λ 213

. . . . Η - - - - - - - - - - [10] 214

. . . . Υ - - - - - - - - - - [10] 215

. . . Φ Λ Ι - - - - - - - - - - [10] 216

65 ἐπὶ Σωσιγένους[35] ἄρχοντος - - - - Ἰκ - 217

[35] See Linders (1972:47) for doubts about the restoration of this archon name.

-αριῶς θυγάτηρ - - - - - [5] κατάστ- 218

-ικτον - - - - - - - - - - - [11] 219

.φ - - - - - - - - - - - - - [12] 220

χιτων - - - - - - - - - - - [11] 221

70 Α . Θ . Ο - - - - - - - - - - [10] 222

ἔρια - - - - - - - - - - - [11] 223

. δε - - - - - - - - - - - [11] 224

73 . Τ Γ - - - - - - - - - - - [11] 225

1522

3[36] . . . . . κατειργασμέν - 226

. . . . . .ἰσοπτυχῆ Μελιστ - 227

5 . . . . . ληδιῶδες ἐν κ - 228

. . . . . ἐμ πλαισί · Θ - 229

. . . . . · Ι · Κλεοβούλη - 230

. . . . . ον ἁλουργοῦν. ερ. ασ - 231

. . . . . κροκωτὸν ἰσοπτυχῆς, ἡ αὐτή - 232

10 . . . . . .ἐπὶ Χαιρώνδου ἄρχοντος - 233

[338-7]. . . . .ἱμάτια μεσαλουργῆ, ἡ αὐτὴ - 234

[36] lines 1&2 are omitted, as they contain only fragmentary characters.

. . . . . κροκωτὸν ἰσοπτυχῆ, ἡ αὐτὴ η - 235

. . . . . ς γυνὴ Σ Ω Ν . . Δ . Ι Ε Π . . . σας - 236

[337-6][37]ες ἐπὶ Φρυνίχου · Χρύσιλλα Αρκεσ[. . . . .] 237

15 ες ἀμόργινον ποικίλην τὴμ πεζίδα ἔχον καὶ πασμάτια 238

ἐπίχρυσα . . . . . Ι Λ Η . . ἰσοπτυχ. 239

ράτη ἀμπέχονον · Γλυκέρα Αριστοδίκου 240

πη κεκρυφάλους τρεῖς ἐμ πλαισι · χιτων . . . . . ἀν- 241

επίγραφον · Χαιρεσρτάτη Χαρισανδρο 242

20 ΑΝΤΑΡΓΠΗΡΓΜΕΝΟΝ ἁλουργές Φιλουμενή 243

[336-5]ιέως γυνὴ χιτωνίσκος λευκὸς παραποίκιλος · ἐπὶ Πυθοδ- 244

ηλου · Ρόδη λίνα ἐπὶ πηνίοις καὶ ΚΛΜΤΗΡΑ 245

νενημένη ἁλουργοῦ · Φανοστράτη Δημοκλε 246

θυγάτηρ χιτώνιον θάψινον παραλουργ · . . . . . ἁλου- 247

25 ργοῦς · Δημοστράτη κροκωτὸν διπλοῦν ΠΕ 248

.τον διπλοῦν · ταραντῖνον ἡμιυφὲς ἀνεπίγραφ · ἔρια ἐν 249

φασκώλωι μαλακὰ κατειργασμένα ἀνεπίγραφα 250

.μάχη κροκωτὸν διπλοῦν ποικίλην τὴν πεζίδα ἔχει τὸ ἄ- 251

γαλμα τὸ ὀρθὸν ἔχει . *vacat*[38] 252

[37] Linders (1972:27)

1523

χιτων - 253

ταραντῖ - 254

I Σ T I - 255

χιτ - 256

ἐς βα - 257

χιτωνίσκον ἐ - 258

- Φιλονίκη χλανίδ- 259

α ἐν κιβωτίωι, ῥάκος· κάνδυν Διοφάντη Ἱερονύμου γ- 260

υνὴ Αχαρνέως πασμάτια ἔχοντα χρυσᾶ, ῥάκος κατάσ- 261

τικτος ἐν κιβωτίωι χειρίδας ἔχων, ζυστιδωτός, Με- 262

νεκράτεια ἀνέθηκεν, ῥάκος· Μενεκράτεια Διφίλου 263

γυνὴ χιτῶνα στύππινον, ῥάκος· Ἡγήσιλλα χιτῶνα στ- 264

ύππινον, ῥάκος· Φαναγόρα κατάστικτον· Αριστομάχ- 265

η χιτωνίσκον λευκόν· Τελεσὼ χιτωνίσκον βατραχε- 266

ιοῦν ῥάκος· Καλλιστράτου Οἠθεν γυνὴ ἀνάδημα ποι- 267

κίλον· ζῶμα λευκὸν ἡ αὐτή· Καλλίππη χιτωνίσκον με- 268

σαλουργῆ,[a] ῥάκος· χιτῶνα στύππινον ἡ αὐτή· Καλλίππ- 269

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[38] Lines 30ff of 1522 concern other offerings.

[39] Column II begins.

[a] cf 1524, 189 which adds λευκ

η χιτωνίσκον γλαυκειοῦν · κιθωνίσκον παραλουργ- 270
ῆ παραποίκιλον ἡ αὐτή, ῥάκος · Καλλιστράτου γυνὴ Α- 271
φιδναίου θώρακα κατάστικτον · Ἠδύλη Φρεαρρι ἀμό- 272
ργινον χιτῶνα, ῥάκος · Θαλλὶς τρυφημα ἀμόργινον,[β] ῥ- 273
άκος · κεκρύφαλον ποικίλον Μίνυλλα · Θαλλὶς χιτων- 274
ίσκον περιήγητον χειριδωτόν[α] · Μνησιστράτη Αἰσί- 275
μου χιτωνίσκον βατραχειοῦν περιποικιλον, ῥάκο- 276
ς · Μυρρίνη τρύφημα · Φανοδίκη Νεάηδρου κατάστικτ- 278
ον, ῥάκος · ἡ αὐτὴ χιτωνίσκον ἀνδρεῖον, ῥάκος · Φαινί- 279
ππη χιτώνιον στύππινον κατάστικτον · κάνδυν, τὸ ἄ- 280
γαλμα ἔχει, Μόσχου θυγάτηρ Λεωσθένους γυνὴ ἀνέθ- 281
ηκεν. 282

1525

[20]. . . . . αι ἁλουργ . . . . . [12] 283
[13] καλαθίδες ; Δ II I ; ταυτ . . . . . [9] 284
[15] ου τρύφημα περίστικτον . . . . [5] 285
[9] . . . . . κεκρύφαλον λευκὸν πεζίδα ἔχοντα . . . 286

1528

2		M	287
		I	288
		ΚΛ	289
5		ῥακ-	290
		χιτωνίσ-	291
		χιτωνίσκον	292
		ω. . .	293
		ποικίλο -	294
10		NOE	295
	.άλουργᾶ -		296
	. . στύππινον -		297
	κροκωτὸν Λ -	ἔρ-	298
	ια κατειργασμένα -	χιτ-	299
15	ώνιον στύππινον -		300
	ιος νεοκόρος ἀνέθηκε -		301
	ονίου ἔρια εἰργασμένα -	τά-	302
	δε προσπαρέδοσαν ἐπιστάται -	χ-	303
	ιτῶνα ἀμόργινον	κατασ-	304

[b] cf. 1524, 194 which adds περιποίκιλον

τίκτου ἕτερ - 305

η χιτῶνα α - 306

οδώρα . ἰσ χιτωνί- 307

σκον κροκωτόν - 308

νίππη - πτ- 309

υγμ - 310

ομ - 311

1529

. . ο [27] υ. η χιτῶνα ἀ- 312

μόρ ; [21] ἐμ πλαι ; Λεωντὶς Δ- 313

ιοχάπους γυνὴ [16] ἐμ πλαι ; Λεωντ - 314

ις Διοχάπους χιτώνιον [7] περιποικιλον · I . 315

. . οβούλη χιτωνίσκον κτενω ; Αριστομαχη ἔκυκλ - 316

ον περιποί ; κτενωτ ; ἐμ πλαι ; Αριστομάχη χιτῶνα 317

ἀμόργ μεσμοαλουργ ; Σ . . άνη κροκωτὸν ἐμ πλαισί · 318

[7] η χιτωνίσκον ἐν κιβω · μεσαλουργῆ καὶ κά- 319

λυμμα · Παυσιστράτη χιτωνίσκον χειριδω ; Διογνή - 320

τη χιτωνίσκον παραλουρ · Μαλθάκη Μόσχου θυγάτηρ 321

Λεωσθένους γυνὴ παρυφ · ληδιον · Θεοπόμπη χιτωνί- 322

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[a] cf 1524, 197 which adds περιποίκιλ

σκον περιήγητον κτενω · Χαιρίππη κάλυμμα ; Λυσώ - 323
ἱμάτιον χρυσᾶ γραμματα ἐξ · κάλυμμα ἀγραφον, προ- 324
ς τῆι ἐλάφωι . . ο . . ὰς χιτῶνα στύππινον · Αρχιλλεια 325
χιτῶνα στύππινον Ι . . κε . . ἱμάτιον παραλουργ ; 326
[4] χιτώνιον στύππινον . . . . κροκώτινον, ῥάκος · 327
[5] χιτώνιον ἀμόργι · ἁπλοῦν, ῥάκος · κροκώτιον 328
ἄγραφον · Μυρρίνη ἐπίβλημα ποικίλον · Αμφιγονις π- 329
στύππι ; ῥάκος · Εὐκολίνη χιτῶν 330
[17] Ι . Ν . Χ . . . Σ Φ . . Ε ; Ε Π Ι [7] 331
[17] Ο . . Ι Τ Η [8] 332
[24] 333
ερ - 334
Λ Ι Ι - 335
ἔτερ - 336
Ε Ν - 337
έτη ἱμάτιον - 338
Ἡρακλε - 339
πλατυαλουργ - 340
Ναυσ - χ- 341
ιτων - 342
σ -

1530

1 . . . Λαμπτρέ · γυνή - 343

. . αρξερξη Κοττ - - - πε - 344

ριποίκιλον ἐμ πλαισίωι - 345

κιτῶνα ἀμόρ ; ἐμ πλαισίωι - 346

5 φάρινον ἡ αὐτή · Αριστ - 347

αρίστη Δημοστράτου - 348

3. Social and historical context:

The ritual and social context of the dedications of clothing to Artemis have been discussed in detail by previous studies.[40] They need only be summarised here. The garments described by the inscriptional catalogue were, as can be seen from the text above, dedicated by women, in all likelihood most frequently at significant events associated with the female reproductive cycle, especially at marriage, or in thanks for successful childbirth.[41] As such, although the garments might be *polutelestatas* – 'expensive' or 'completely finished' – they would generally have been worn, and often made, by those who dedicated them.[42]

In considering the historical context of these inscriptions, or more properly for this study, of the 'catalogue in use,' the obvious starting points are place and time. Neither is absolutely straightforward. Linders (1972:70-73) contends that contrary to initial assumptions about these inscriptions, the catalogue refers to dedications made at Brauron, not at the Brauronion on the Acropolis. [43] Indeed, the reported (but still not yet published) finds of 'exactly equivalent' inscriptions by the excavation of the sanctuary complex at Brauron, would seem to establish this beyond reasonable doubt.[44] The fragments published in *IG II*^{2} come from duplicate stelae set up in the city.

Dating within the catalogue is relatively easily established, since the lists are organised according to the archon-year in which the objects were dedicated. Within these years, they are also generally identified by the dedicants' names.[45] Linders suggests that the collection itself was spatially organised by year of dedication, and that the order of appearance in the catalogue reflects the physical arrangement of the objects within the sanctuary. (Linders, 1972:69) Her study, which includes detailed comparisons with other inventories of dedication, also emphasises the longevity of the practice of inventorying dedications – "the registering of votives . . . had evidently begun long before the fourth century, and went on as long as offerings were dedicated to Artemis Brauronia."[46] Indeed, although she does not make the connection explicit, these two points would seem to complement one another, the concordance between the arrangement of the items and their year of dedication facilitating both the creation of an annual inventory, and the circulation of objects within the holding. Even when degraded by time, dedications remained divine property, and were not simply discarded, but instead buried within the *temenos*.[47] Both the collection of dedications and the catalogue therefore, should be imagined as existing in continuous, if

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[40] See Linders (1972) Cole (1998) Foxhall & Stears (1999)
[41] Schol.Cal.*Hymn to Zeus* 77, Cole (1998:34) but cf. Eur.*IT.*1464 ff. and Linders (1972:69, n.16)
[42] *Peri Parthenion* 5-6, Cole, (1998: 36)
[43] See n.44. View generally held, but not by; Rangabe (1855) 863b, line 6; Michaelis (1871:312); Lehner, (1890:79)
[44] By J. Papademetriou, 1948-1962. Reports in *Praktika*, 1945/8 onwards and *Ergon*, 1954 onwards. Summaries in , *BCH* (corresponding years) *JHS* to 1959. See also Wiesel & Speich (1970:181ff) and Linders (1972:3-4, n.18)
[45] There are 27 exceptions, not including garments with fragmentary descriptions, at lines 28, 38, 39, 40, 41, 43, 44, 45, 49, 58, 61, 65, 69, 105, 107, 108, 122, 146, 154, 165, 241, 249, 250, 324, 329
[46] Linders, (1972:68-9, esp. n.18)
[47] Cole, (1998:39) and for Miletus, Gunther (1988:215-37)

stately, flux, with the oldest objects being periodically removed from both the collection and the inventory to make room for new dedications. The process and records of inventorying ensured and demonstrated the continuity and proper handling of this physical manifestation of piety, as well as recording any other transactions pertinent to the dedications, in a way that transcended the annual transfers of the priesthood.[48]

The fragments of inscription now extant are therefore fragments of fragments. Even a complete *stele* would be only a slice of the continuum, one annual manifestation of the catalogue as an evolving social artefact, and this must lessen unease about using the fragments in conjunction to provide a more full approximation to the catalogue as a whole. The relative and absolute dating of the extant fragments, or rather the six postulated *stelae* of origin, is a more vexed question.[49] Linders suggests that the evolution of the catalogue can be discerned in the increasing abbreviation of the parallel passages (1972:67)[50] However, the relative dating of the fragments can only be suggested, and only one of them contains a terminal date.[51] All that can confidently be said is that the remnants of the catalogue record dedications made in the years 349/8, 348/7, 347/6, 346/5, 345/4, 344/3, 343/2, 342/1, 338/7, 337/6, 336/5, and that the fragments themselves probably come from between 353/2 and 336/5.[52]

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[48] See Nemeth (1994:59-64) for waste disposal regulations of all kinds relating to sanctuaries. Other transactions are not recorded for the garments, and were probably more common for objects of precious metal. In the inventories of metal objects from Brauron, "if a subsequent transaction concerned one of the items of a certain year, a note of this fact could be added to the original paragraph, although it might be several years earlier." i.e. 1524, 58ff and 124f. (Linders, 1972:69, n.15) cf. *Inscr.Del.* 372-498

[49] Discussed in detail by Linders, (1972:67-8). See also Kohler, *IG* II, lemma to 751, cf. Ferguson (1932:127) Michaelis (1871:308).

[50] Also note especially the relative lengths of the lists for the earliest recorded archon years with later years (i.e. lines 10-12 cf. 12-24 etc.) which would imply that only certain dedications had been retained for these years, (by implication rather distant in time from the date of inscription) rather than that only a few objects had been dedicated.

[51] "The only stele for which an absolute date can be given is Stele 3, 1516 & 1522. Since the last date of the garment list of 1522 a. 336/5 is found in the section immediately preceding the list of bronze objects, it is reasonable to regard this as the final year of the stele." Linders (1972:68, cf. 24 and 1522, line 21-2).

[52] See p.70 and Cole (1998:37, n.20) for further details, cf. above, n.26 – I am unsure of the source or rationale behind Cole's choice of 353 as the terminus post quem, and would myself suggest that the date of inscription of the fragments which record the earliest dedications was well after those years.

3.1 Administrative and social functions:

The purely practical function of the catalogue as an administrative tool seems relatively clear. As an inventory, it was a physical record of the objects which had been received at the start of the term of office, against which any changes, removals or additions could be checked at its end.[53] That it was so used would seem to be indicated by comparison of the parallel passages, both in terms of the abbreviations mentioned above, and of the insertion of ῥακός against certain items.[54] Certain characteristics can be identified which would have aided its use in this way. One is the reflection of the physical arrangement of the collection. Another is the identification of objects by the name of the dedicant, with which they were usually marked. One further characteristic, which is of the most significance for this study, is the inclusion of descriptions of notable, and/or identifying characteristics of the garments themselves. Some of the reasons for this emphasis on specific description of characteristics will be explored further below, and of course, they are central to the analysis which follows this section. Here, it is sufficient to note that the inclusion of such description appears to be the result of positive choice, since the proportion of named to unnamed dedicants (155\27 in non-fragmentary descriptions) would seem to have made it a reasonable proposition to identify the objects solely by type and dedicant without further description.

It is also worth emphasising that in terms of the practical functioning of the catalogue as a tool of the inventory process, these three characteristics should be seen as working together to allow the identification of each specific object within a large collection of broadly similar objects.[55] The practical purpose of the descriptions of garments given in these inscriptions was therefore to facilitate discrimination between them, and indeed, it may be suggested, to do so as simply, briefly, and effectively as possible.[56]

Such inscriptions, set in stone on the Acropolis, cannot, however, be seen as merely an administrative tool. In the Athenian context, they should also be seen as public documents of the democratic state. Nor does this imply that their function was purely to demonstrate the accountability of religious administration to public scrutiny. It seems likely that the inscription of these catalogues also fulfilled a number of social functions, which were not necessarily directly political. "The inventories accomplished two things. As records of gratitude for the protection of the goddess, they reminded the community of the successful performance of public ritual. The stones on which the texts were inscribed however . . . stood to remind the gods of a history of collective ritual . . . these inventories symbolised the city's achievement in promoting its rituals, supervising its women, and producing its crop of healthy children."[57]

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[53] Cole, (1998:38) and Linders (1972;69, n.12, 13) for comparable examples from Athens and Delos.
[54] See lines 115-118 and their notes.
[55] 182 fully described and 76 partially described in these fragments.
[56] See p.120
[57] Cole, (1998:41-2) see also Dakoronia & Gounaroupoulou, (1992: 219-23).

With reference to the dedications themselves, Cole makes two other points: firstly that Artemis is associated with both the most extended and the most intimate aspects of the *polis* as an entity. Her sanctuaries were often at the (disputed) borders of city-states, yet the items dedicated within them included those relating to the most private sphere of life, the clothes and textiles worn and made by women within the home, and votive models of body parts associated with reproduction and fertility.[58] Secondly, that as well as being thank-offerings to the deity, the dedications formed a tangible record of successfully completed female reproductive cycles (uninterrupted by premature death or by infertility) and their continuity, demonstrating the ritual and physical health of the community. "Their value for the city was reckoned not only by the value of the garment, but by the meaning of those occasions [of dedication]. In the case of the women who dedicated their belts, headgear and elaborate dresses, or the clothing of their children, the issue was not a single occasion, but a full cycle of rituals to produce an adult woman."[59]

Both these points, made about the objects themselves, can be expanded with specific reference to the public catalogues which described them. One of the reasons (though regrettably not much explored by this study) that these inscriptions are so fascinating is the way in which they make the private, and personal, public. They reveal to us the real clothes, made and worn, by and for, real people (not for goddesses and their statues, for instance, or the heroic and divine characters of tragedies, or the famous or exotic men and women of histories, all of which are discussed in later chapters). Beyond the dedications themselves, these inscriptions record the names of Athenian women, who so often go nameless, as well as their skills and their possessions.

As such, these skills and possessions, both in the form of garments, and as records of successfully completed 'public' service, show that: "apparel and ornament, these are the insignia of women."[60] In this context, it may not be going too far to regard these inscriptions, in their social function, as equivalent for women to the inscribed lists of public office-holders which are so much a part of the detritus of Athenian democracy. By the inscription of this catalogue, the skills, possessions, and status of the female dedicants are immortalised in stone, publicly asserted in a form which is meant to be looked at, to be read. This aspect of the catalogue, as a public statement of social value, in combination with the contemporary description of dedicated garments as *polutelestata*, will be kept in mind throughout the following consideration of those aspects of the garments that are singled out for description.[61]

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[58] Cole (1998:34)
[59] Cole (1998:39)
[60] See p.263, n.87
[61] See n.42

4. Introducing the Tabular Format:

In order to introduce and explain the arrangement of the descriptions of garments into the tables which follow, it seems best to discuss an example. Forty-three out of the 182 garments fully described by the extant text are described in terms of what we would normally consider to be the colour of clothing – in terms of their hue.[62] However, a much higher proportion of the descriptions include reference to colour in the form of pattern or decoration, and there is a wider range of terms for decoration than for simple colour. Many of these terms for decoration are unfamiliar and confusing. From the glossary, it is also clear that the standard translations of most of these terms are remarkably similar.[63] However, since these terms are more significant to the description of garments within the text than the simple colour terms, and involve colour in some form, they require further consideration.

This is facilitated by the tabulation of the descriptions.[64] The categories are simple – to avoid circular reasoning based on which category one had decided to assign a term to – and are basically classes of exclusion based on apparent terminological meaning. In fact, most of the terms can be assigned to these basic categories rather easily – type, colour and person are the most obvious because the terms they contain are often well attested from other sources. Under fabric, for example, are included all the terms which seem to relate to the material of the garment, and not just to its composition.[65] The 'decorative' terms have been separated into three categories, a process often more open to debate. Two of these categories ('decoration' and 'coloured decoration') refer to patterned decoration, whether all over the garment, or in the form of borders or bands. The latter, 'coloured decoration,' is obviously a sub-division of the decoration category, for decorative features whose colour is specified. The third decoration category contains other described features of the garment that do not involve pattern. It is a broad category, because it includes features like folds and sleeves, as well as scalloping. The rationale behind this is that these features have been described because they were non-essential, or optional, to the garment.

The validity of these tables, and the categories they express, as an analytical tool, will be discussed further below.[66] At the moment, they can be considered as a convenient way of arranging and comparing the information. As such, some preliminary observations are in order. The coloured decoration category is simpler than might be expected, with only one instance of a specified colour which is not ἀλούργος.[67] The main decoration category is more complex. Fundamentally, the tables indicate that, although most of these terms are often translated as though they were almost synonyms, their use within these descriptions makes it seem likely that this was not originally the case. The nature, purpose and

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[62] Even if it is not absolutely clear which colours these Greek terms refer to, or if they do, see Ch.1 and 2, and especially Glossary, p.138-9
[63] See p. 102ff, 128 and Glossary, G1, p.134ff
[64] See p.106-119
[65] See p.59-60 and Glossary, G5, p.140ff
[66] See p.120-29
[67] See p.129 and Glossary, G2, p.137ff and Line 40 above, cf. Tables, p.116

context of the descriptions of garments within this catalogue will also be considered in more detail below.[68] At this point, it is sufficient to note that these descriptions are not literary.

That is, while one expects to find variation in the terms used in descriptions (of anything, not just garments) given in literature – for reasons of style, aesthetics, or indeed for the sake of variety – there is no reason to have such expectations for this type of text. Indeed, to describe the same feature in different ways when creating a catalogue or inventory would be positively counter-productive. Such an enterprise does not require literary panache, and to include variation for its own sake would hinder rather than help the whole purpose of making an inventory in the first place. I would argue therefore, that although the differences in meaning between terms like *katastiktos* and *poikilos*, or *parhuphes* and *periegetos*, may not be obvious now, they were once, and that these terms are used deliberately and with discrimination.[69]

4.1 Predominant Features of Garment Descriptions:

Two points present themselves; firstly, that the range of decorative terms used is in itself significant; and secondly that the high proportion of garments described in terms of their decoration or pattern is not only significant in itself, but even more so because the description is specific rather than general. That is, although it is tempting when translating these descriptions – mentally or formally – to think 'patterned garment,' 'bordered garment,' the Greek description records not only the presence of decoration, or the distinction between pattern and border, but often the specific nature of the decoration.[70] On this basis, it would be wrong to overlook the conceptual significance of decoration as an aspect of Greek clothing.

Other aspects of this catalogue, which the tables make clearer than the text itself, are relative proportions and independence in the descriptions. The catalogue describes the garments it records in between one and six descriptive terms. The majority (88 garments) are described by two terms. Of the forty-two garments described by a single term, twenty-six are distinguished solely by type, nine solely by decoration, six solely by colour, and one by fabric. Naturally, we must infer that those garments which are described using only a single term were often less physically complex than those which demanded four to six terms, but this does not make them uninteresting. Some of the garment types only appear as single term descriptions, such as the ληδίον, φάρινον and ταραντίνον (apart from one, which is also κροκωτὸς). These then, should not be considered unremarkable examples of their type, but garments of an inherently unusual type, whose other features did not require mention to render them recognisable.

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[68] Section 5.

[69] It is possible that these inscriptions represent 'technical' language. But I would not argue this in a positive sense, pointing out rather that most literature represents literary language – see below on use of terms in tragedy – in contrast to vernacular, which I would argue this is. See above, Sect. 3. Language as written is always the result of **selection** from among many options. cf. p.169f, and Denniston (1927:113-21) Brenner (1982:25)

[70] See p.128-9

The spread of single term descriptions across the categories is also interesting. Although garment type terms predominate, the combined categories of colour and decoration are the only others which appear as single term descriptions. I have included the single example of the σινδονιτης in the fabric category to emphasise its fabric content, and apart from this (which would perhaps more properly be seen as a type term) none of the other variants display a similar independence. The spread of independent terms to denote garments would therefore seem to suggest that colour/decoration should be regarded as the second most salient feature of garments.

Of the eighty-eight two-term descriptions, only ten do not include the type of garment, and these are evenly split between prioritising decoration and colour. One would expect the spread of the single term descriptions across the categories to reflect their overall role in description, and indeed, this is generally the case. The pattern of two-term descriptions confirms the primacy of type in identifying garments, but again the variants of colour and decoration are the only ones that appear independently. Moreover, colour or decoration (or coloured decoration) form part of half of all the two term descriptions. Twenty-five of these fifty-one descriptions mark the colour. To appreciate the implications of these proportions for the salience in the Greek mind of various features of garments, it is perhaps easiest to imagine the process of creating these descriptions. We can imagine that certain features of each garment 'leapt out' at the cataloguer, and we can say that apart from consideration of the garment's type, the decoration and colour of a garment were the features that most often attracted attention and description.

4.2 Colour: A Literal Analysis:

Before moving on to consider the tables in detail, it is worth outlining the type of information about colour that is available from a literal analysis of the Brauron catalogue. Legitimate questions would be largely statistical; how many different colours are specified? What different types of decoration involving colour? How many coloured or decorated garments are described? Are there patterns in the relationship between types of garment and described colour? Such questions can be answered fairly easily by a detailed reading of the text, although they are made very much simpler by the excision of duplicate passages.

Within these inscriptions, eight different colours are specified for garments or decoration. White (λευκὸς) is used for eighteen items, κροκωτὸς (saffron) for twelve, βατραχειοῦν (frog-colour) for six, ἁλουργὸς (sea-purple) for three, γλαυκεῖον (blue) for two, and θαψινὸν and μηλινὸν (yellows) for one each.[71] These figures relate to what appears to be the 'base colour' of garments, and refer only to the non-fragmentary descriptions.[72] Including the incidence of reconstructed terms from fragmentary

[71] See p.138ff for colour-terms, and p.37 for *glaukos*. cf. Maxwell Stuart (1981)

[72] Since this is a point of some importance, the reasons for such an assumption should be explored. As is discussed below, p.129, only the term ἁλουργὸς is qualified by other terms indicating area or extent. Since this one term is so qualified, it must be assumed that similar qualifications for other terms were

descriptions increases the frequency of ἀλουργὸς to almost that of λευκὸς One item of decoration is specified as being φοινικιον, all the other decoration of a specified colour is ἀλουργὸς (twenty-one instances of various compound terms i.e. παρα-, μεσο-, πλατυ-). There are, overall, ten different terms which also seem to refer to decorative patterns involving colour, although their colour is not specified.[73] Of one hundred and eighty two complete descriptions of garments, one hundred and eleven involve either, or both, base colour and decorative patterns. The only base colour specified for *himatia* is white, while most, but not all, of the other garments whose colour is specified are described as varieties of *chiton*.[74]

Questions such as those posed and answered above fail, in my opinion, to make the most of the unique potential of these inscriptions. They are posed and answered purely on the basis of what the text says, without consideration of what it means, and because what the text now says, is simply all that has survived the slings and arrows of outrageous fortune, such answers as can be achieved by counting are largely irrelevant in a wider sense. Statistical analysis tells us something about the remains of this catalogue, and some of the dedications made in these years. But it can tell us nothing about the meaning of these terms, or what their use was intended to convey, or why some garments were identified by their colour, while the colour of others is ignored.

4.3 Colour: A Lateral Analysis:

The deficiencies of a literal analysis are sufficient to justify a more lateral approach. A comparison of the text with the tables below demonstrates how much easier the tabular format makes even a literal, statistical analysis. However, having completed such an organisation of the information (initially, a single table was completed simply in order of occurrence) many more common features and differences are immediately easier to apprehend. The discussion below will concentrate on the application of semiotic theories to these descriptions, but it is worth emphasising that, although the very process of creating such a framework has engaged with the operation of 'variants' as conceived by Barthes, the tables have their origins entirely in the text itself. They provide many opportunities for analysis which are not dependent on such theories.[75]

Throughout the tables, each row refers to a single description of a garment, so far as such singularity can be established.[76] The first column gives the line number in which the description begins, and the other columns detail the various components of the description. In terms of the theories outlined below, these are equivalent to 'variants,' but it should be evident that they arise from the text and the

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available but not used, and therefore that the terms in use were intended to indicate the main colour of the garment.

[73] See Glossary, G1, p.134-6

[74] See p.149-51

[75] See above, Section 4.1-2

Greek terms it contains.[77] Strictly speaking, these categories could be reduced to five, (type, decoration, colour, fabric, gender) rather than the seven used here.[78] It should be noted that three of the seven categories, namely decoration, coloured decoration, and colour, actually refer primarily to the colour of clothing. It also seems worth pointing out that the categories could conceivably have been further subdivided along the lines suggested by Barthes to encompass the idea of the 'support' – for example, the decoration category currently includes all over pattern and border pattern, a potential basis for subdivision of this category, while the type category might have been divided into variations on the *chiton* as opposed to other garments. Such subdivisions have been rejected because they are based on distinctions which cannot be definitely established from the text. Other conceivable categories (for instance, whether the garment is indicated as ῥακος in some versions, or whether it was accompanied by the name of the dedicant, or how it was displayed) have been rejected as unrelated to the description of the garment as a garment, rather than as a dedicated object. In every case however, the identification of each description by its line number allows cross-referencing with the text.

The descriptions have been subdivided into different sections according to the number of terms they invoke. Within these (one-term descriptions, two-term descriptions, etc.) the descriptions have been arranged according to their combinations of terms. This has been done in order to make them easier to appreciate at a glance – it is not an inherently analytical organization, but I believe that it facilitates study and comparison. In addition, totals have been provided within the tables to aid appreciation of the proportion of variants invoked in description.[79]

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[76] The fragmentary descriptions are given at the end of the set of tables. For fragmentary descriptions, this is of course, often a matter of deduction from line position etc. For complete descriptions it is generally, but not inevitably, more certainly established: i.e. Lines 54, 115, 141-2

[77] Equivalences of these categories and Barthes' variants are discussed and detailed below, p.124 and n.88

[78] See discussion above, p.101ff

[79] This is not strictly speaking part of the analysis, but it is illustrative, and the totals should be considered as indicative of proportions, not absolute numbers.

One Term Descriptions:

	Type	Decoration	Coloured Dec.	Colour	Other Dec.	Fabric	Person
15	ζωμα						
20α	χιτωνισκος						
22	τριβωνια						
36	αμπεχονον						
37	ταραντινον						
44	ληδιον						
45α	ληδιον						
50	αμπεχονον						
70	ταραντινον						
105	λασι						
124	ταραντινον						
127	τρυφημα						
163	καλυμμα						
163	κανδυν						
169	χιτωνιον						
177	αμπεχονον						
240	αμπεχονον						
241	κεκρυφαλους						
241	χιτων						
259	χλανιδα						
278	τρυφημα						
281	κανδυν						
320	καλυμμα						
323	καλυμμα						
324	καλυμμα						
347	φαρινον						
26	26						

One Term Descriptions (cont.):

	Type	Decoration	Coloured Dec.	Colour	Other Dec.	Fabric	Gender
9		καταστικτον					
18		περιηγητον					
57		καταστικτον					
138		καταστικτον					
177		παρυφες					
265		καταστικτον					
278		καταστικτον					
16α				βατραχιδα			
48				βατραχις			
172				κροκωτον			
243				αλουργες			
318				κροκωτον			
328				κροκωτιον			
106						σινδονιτης	
14		7		6		1	

'One Term Descriptions Totals:

	Type	Decoration	Coloured Dec.	Colour	Other Dec.	Fabric	Gender
p.1	26	0	-	0	-	0	0
p.2	0	7	-	6	-	0	0
Total							
40	26	7	0	6	0	1	0

Two Term Descriptions, Type & Colour:

Line	Type	Decoration	Coloured Dec.	Colour	Other Dec.	Fabric	Gender
20	ιματιον			λευκον			
49	ξενικη			αλουργος			
82	τρυφημα			κροκωτον			
112	χιτωνισκον			λευκ			
128	ιματιον			λευκον			
136	χιτωνισκον			γλαυκειον			
155	ερια			γλαυκεα			
164	ιματιον			λευκ			
165	ενκυκλον			λευκ			
169	ιματιον			λευκον			
180	ενκυκλον			λευκον			
266	χιτωνισκον			λευκον			
266	χιτωνισκον			βατραχειουν			
268	ζωμα			λευκον			
270	χιτωνισκον			γλαυκειουν			
308	χιτωνισκον			κροκωτον			
16	16	-	-	16	-	-	-

Two Term Descriptions (cont.) Type & Decoration, Type & Coloured Decoration:

Line	Type	Decoration	Coloured Dec.	Colour	Other Dec.	Fabric	Gender
19	κανδυν	ποικιλον					
25	χιτωνις	πυργωτον					
33	επιβλημα	ζωια δεξιουμενα					
34	αμπεχονον	ιερον επιγεγραπται					
38	διπτερυγον	καταστικτον					
43	χιτωνισκος	περιηγητος					
48α	εγκυκλον	ποικιλον					
52	χιτωνισκον	περιηγητον					
121	χιτωνισκον	περιποικιλον					
274	κεκρυφαλον	ποικιλον					
285	τρυφημα	περιστικτον					
315	χιτωνιον	περιποικιλον					
322	ληδιον	παρυφ					
329	επιβλημα	ποικιλον					
116	χιτωνισκον		πλατυαλουργη				
122	χιτωνισκος		παραλουργης				
144	ιματιον		παραλουρ				
145	χιτωνισκον		πλατυαλουργη				
146	χιτωνισκος		πλατυαλουργης				
234	ιματια		μεσαλουργη				
269	χιτωνισκον		μεσαλουργη				
319	χιτωνισκον		μεσαλουργη				
321	χιτωνισκον		παραλουρ				
324	ιματιον		χρ. γραμματα				
326	ιματιον		παραλουργ				
25	25	14	11	-	-	-	-

Two Term Descriptions (cont.) Type & Other Decoration, Type & Fabric:

Line	Type	Decoration	Coloured Dec.	Colour	Other Dec.	Fabric	Gender
45	χιτωνισκον				κτενωτον		
51α	χιτωνισκον				κτενωτον		
119	χιτωνισκον				κτενω		
123	καλυμμα				συνεραμμενον		
260	κανδυν				πασματια χρυ.		
264	χιτωνα					στυππινον	
316	χιτωνισκον				κτενω		
320	χιτωνισκον				χειριδω		

10	χιτωνα					αμοργινον	
22α	χιτωνια					αμοργινον	
53	χιτωνισκον					ημιυφη και ερια	
57α	ερια					μαλακα	
59	χιτωνιον					ημιυφες	
61	χιτωνιον					αμοργινον	
,110	χιτωνιον					αμορ	
115	χιτωνιον					στυππινον	
117	χιτωνισκον					στυππινον	
141	ερια					μαλακα	
149	χιτωνιον					αμορ	
150	χιτωνιον					στυππινον	
153	χιτωνιον					αμοργι	
172	χιτωνισκον					ημιυφη	
173	διπτεργον					αμοργι	
175	χιτωνα					αμοργι	
249	ταραντινον					ημιυφες	
25	25	-	-	-	7	18	-

Two Term Descriptions (cont.) Type & Fabric (cont.) Type & Gender, 2x Decoration, Decoration & Other Decoration:

Line	Type	Decoration	Coloured Dec.	Colour	Other Dec.	Fabric	Gender
269	χιτωνα					στυππινον	
273	χιτωνα					αμοργινον	
273	τρυφημα					αμοργινον	
300	χιτωνιον					στυππινον	
302	ερια					ειργασμενα	
303	χιτωνα					αμοργινον	
312	χιτωνα					αμορ	
325	χιτωνα					στυππινον	
346	χιτωνα					αμορ	
47	ιματιον						ανδρειον
118	χλανιδα						ανδρει
120	χιτωνισκον						ανδρει
139	χλανισκιον						παιδει
145	χιτωνισκος						γυναικειος
279	χιτωνισκον						ανδρειον

11		καταστικτον ξυστιδωτος					
168		καταστικτος ξυστιδωτ					
179		παρυφες ποικιλον					
6		καταστικτον			χειριδωτον		
111		παρυφες			επτυγμενον		
20	15	8	-	-	2	9	6

Two Term Descriptions (cont.) Decoration & Colour, Colour & Other Decoration:

Line	Type	Decoration	Coloured Dec.	Colour	Other Dec.	Fabric	
56		καταστικτου		αλουργιδος			
60				κροκωτον	διπλουν		
62				κροκωτον	διπλουν		
232				κροκωτον	ισοπτυχης		
235				κροκωτον	ισοπτυχη		
248				κροκωτον	διπλουν		
6	-	1	-	6	5	-	-

Two Term Descriptions Totals:

	Total	Type	Decoration	Coloured Dec.	Colour	Other Dec.	Fabric	Gender
p.3	**16**	16	-	-	16	-	-	-
p.4	**25**	25	14	11	-	-	-	-
p.5	**25**	25	-	-	-	7	18	-
p.6a	**15**	15	-	-	-	-	9	6
p.6b	**5**	-	8	-	-	2	-	-
p.7	**6**	-	1	-	6	5	-	-
Total	**92**	**81**	**23**	**11**	**22**	**14**	**27**	**6**

Three Term Descriptions:

Line	Type	Decoration	Coloured Dec.	Colour	Other Dec.	Fabric	Gender
12	χιτωνισκος	περιποικιλος		αλουργος			
14	χιτωνισκος	ποικιλος		αλουργος			
126	χιτωνισκον	πυργωτον		λευκον			
127	χιτωνισκον	μεσοποικιλ		βατραχε			
244	χιτωνισκος	παραποικιλος		λευκος			
276	χιτωνισκον	περιποικιλον		βατραχειουν			
27	ιματιον		παραλουργες	λευκον			
247	χιτωνιον		παραλουργ	θαψινον			
270	κιθωνισκον	παραποικιλον	παραλουργη				
21	χιτωνισκον	περιηγητον	εκπλυτωι αλουργει				
54	χιτωνισκου		παραλουργιδιον		απλουν		
114	ιματιον		παραλουρ				παιδει
142	ζωμα		πλατυαλουργες				γυναικε
317	χιτωνα		μεσμοαλουργ			αμοργ	
16	ιματιον			λευκον			γυναικειον
58	χιτωνισκον			κροκωτον			παιδιου
104	κεκρυφαλον	πεζιδα		λευκον			
286	κεκρυφαλον	πεζιδα		λευκον			
107	χιτωνισκον			μηλινον		αμορ	
327	χιτωνιον			κροκωτινον		στυππινον	
20	20	10	8	14	1	3	4

Three Term Descriptions (cont.):

Line	Type	Decoration	Coloured Dec.	Colour	Other Dec.	Fabric	Gender
30	χιτωνισκον	εξιστων			κτενωτον		
42	χιτωνισκος	περιποικιλος			κτενωτος		
171	χιτωνισκου	πτεργας			κτενωτου		
275	χιτωνισκον	περιηγητον			χειριδωτον		
317	εγκυκλον	περιποι			κτενωτ		
323	χιτωνισκον	περιηγητον			κτενω		
39	χλανις	παραβολον				καρτη	
176	κανδυν	περιποικιλ				αμοργι	
280	χιτωνιον	καταστικτον				στυππινον	
71	τρυφημα	παρυφες καταστικτον					
261		καταστικτος ξυστιδωτος			χειριδας		
11	10	13	-	-	7	3	-

Three Term Descriptions (cont.):

Line	Type	Decoration	Coloured Dec.	Colour	Other Dec.	Fabric	Gender
51	χιτωνιον				απλουν	αμοργινον	
63	χιτωνιον				ισοπτυχες	αμοργινον	
64	χιτωνιον				διπλουν	αμοργινον	
328	χιτωνιον				απλουν	αμοργι	
65	χιτωνιον				ισοπτυχες διπλουν		
151	ιματιον					ημιυφη και ερια	γυναι
143	ερια					κατειργασμεν μαλα	
170	χιτωνα					λιτον αμοργι	
250	ερια					μαλακα κατειργασμ.	
9	9	-	-	-	6	11	1

Three Term Description Totals:

	Total	Type	Decoration	Coloured Dec.	Colour	Other Dec.	Fabric	Gender
p.8	20	20	10	8	14	1	3	4
p.9	11	10	13	-	-	7	3	-
p.10	9	9	-	-	-	6	11	1
Total	40	39	23	8	14	14	17	5

Four Term Descriptions / Five and Six Term Descriptions:

Line	Type	Decoration	Coloured Dec.	Colour	Other Dec.	Fabric	Gender
69	ιματιον	ιερον επιγεγραπται	παραλουργες	λευκον			
108	χιτωνιον			λευκ	διπλουν		παιδιου
178	καυδυν	ποικιλ		βατραχειουν		λινουν	
7	χιθωνισκος	περιποικιλος γραμ. ενυφασμενα			κτενωτος		
17	ιματιον	περικυματιον	πλατυαλουργες				γυναικειον
31	επιβλημα	ποικιλον σημειον[1]				καινον	
238		ποικιλην πεζιδα			πασματια[2]	αμοργινον	
251		ποικιλην πεζιδα		κροκωτον	διπλουν		
8	6	11	2	4	4	3	2

28	χιτωνισκον	παρυφην θερμαστιν				καρτον	παιδει
40	χλανισκιον	ιερον επιγεγραπται	παραβολον φοινικιον	λευκον		καρτον	παιδιου
46	χιτωνισκος	πυργωτος παρακυματιος	πλατυαλουργης	λευκος			
160		καταστικτον πεζιδα			ψιλον πασματια	τριχαπτον	
4	3	7	3	2	2	3	2

[1] Of Dionysos and a woman pouring a libation

[2] επιχρυσα

Fragmentary Descriptions:

Line	Type	Decoration	Coloured Dec.	Colour	Other Dec.	Fabric	Gender
3	καλυμμα						
4	ταραντινον						
66	χιτων						
68	ταραντινον						
68	ταραντινον						
74	χιτων						
76α	χιτωνιον						
80	ιματιον						
83	ιματιον						
94	χιτων						
106	χιτωνιον						
129	χιτων						
133	ταραντινον						
158	χιτων						
186	ταραντινον						
221	χιτων						
,223	ερια						
228	ληδιωδες						
253	χιτων						
254	ταραντι						
256	χιτ						
258	χιτωνισκον						
291	χιτωνισ-						
292	χιτωνισκον						
298	ερια						
306	χιτωνα						
330	χιτων						

Line	Type	Decoration	Coloured Dec.	Colour	Other Dec.	Fabric	Gender
337	ιματιον						
341	χιτων						
346	κιτωνα						
1		ποικιλον					
67		καταστικτον					
200		παρακυματιον					
202		καταστικτον					
218		καταστικτον					
294		ποικιλο-					
305		καταστικτου					
344		περιποικιλον					
76			πλατυαλουργη				
199			πλατυαλουργ				
339			πλατυαλουργ				
81				κροκωτον			
86				αλουργιδα			
93				αλουργες			
130				αλουργ			
134				αλουργιδα			
191				αλουργη			
194				κροκωτον			
196				λευκον			
231				αλουργουν			
246				αλουργου			
247				αλουργους			
257				βα-			
283				αλουργ			
296				αλουργα			
298				κροκωτον			

Line	Type	Decoration	Coloured Dec.	Colour	Other Dec.	Fabric	Gender
2						αμοργινον	
72						ημυιφης	
85						αμορ	
92						αμοργι	
95						κατειργας	
98						στυππινο	
190						ημιυφη	
195						αμοργινον	
226						κατειργασμενα	
297						στυππινον	
330						στυππι	
67					διπλουν		
227					ισοπτυχη		
239					ισοπτυχ		
249					διπλουν		
79	χιτωνισκον				κτενωτον		
188	χιτωνιον				ισοπτυχες		
195					ισοπτυχες	αμοργι	
,180		παρυφες				στυππι	
76	**32**	**9**	**3**	**15**	**7**	**13**	**0**

5.1 Introduction to the Analysis:

Although these tables represent a second level of simplification and selection to the edited text, they remain remarkably complex. The next section of this chapter, which contains the main analysis of the descriptions of garments, therefore concentrates initially on the example of the 'fabric' category, which provides a relatively uncomplicated opportunity to relate the theoretical approaches described below to the practice of analysis of these specific descriptions.

Before exploring the relevance of semiotic theory to this inscribed catalogue, it would seem worthwhile to consider the reasons for engaging with the text on this level. By considering the relationships between these terms as they are used to describe and distinguish individual items, it is possible to arrive at a clearer understanding of their import.[80] It is quite clear from the nature of the descriptions of dedicated garments which appear in these inscriptions, that they are not 'technical descriptions.' That is, they do not accurately or completely describe the physical nature of the real garments. The issue therefore is not simply one of translation. Even were we in the ideal situation of possessing a complete understanding of the practical meaning of all of the terms used, it would still be necessary to analyse why certain aspects of certain garments are singled out for description and others are not. It is clear that these 'Treasure Records' do not record every aspect of each dedicated garment. The inscribed, official, and utilitarian, nature of the catalogue suggests that the identified aspects constitute what might be termed 'minimum description' – the simplest possible description which nevertheless identifies the distinctive features of each garment.[81]

I would argue that in considering distinctiveness, at least two grounds can be identified; features which make the garment different from other similar garments in the collection, but also, and equally significantly, features which are socially or culturally salient. (A possible background to this salience has been discussed above with reference to the inscribed catalogue as a public record of the skills, achievements, and piety of women). But by considering the nature of the descriptions, we may hope not only to compensate for the loss of those features of the 'real' garments that were not described by the writers of this catalogue, but also to go beyond them, and appreciate something of why certain aspects of clothing were singled out, while others were not.[82] It is at the level of the 'written garment' – rather than either of the object levels - that we can legitimately consider the choices that have been made in these descriptions, and the oppositions that they imply.

There are several reasons why this particular catalogue provides a good subject for such an experiment. Not only is it extensive, but as parts of a catalogue, these inscribed descriptions testify to the continued presence of the items in the sanctuary, and must distinguish the garments one from another in order to do so. In this respect, since "the described object is actualized, given separately in its plastic form" (at least for the original users and creators of the catalogue) they differ from most descriptions of

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[80] See thematically arranged Glossary, p.134-47
[81] See p.97-100
[82] See above, Section 3, and Aleshire (1989:14, n.5)

clothing in Greek literature, in that; "In literature, description is brought to bear upon a hidden object (whether real or imaginary): it must make that object exist." (Barthes 1990:12)

5.2 The Semiotic Analysis of Description:

The concept of the 'vestimentary code' was introduced above, and that of the 'written garment,' has just been referred to. Both require some theoretical background. Most of the research described above (the edition, the tables, and the glossary) and the aspects already considered (proportions and independence in the patterns of description, and the statistical appearances of colour) predates my interest in the semiotic theories of description. This interest arose because it seemed possible that some meaningful relationship existed between **all** the members of each range of terms used to describe each aspect of the garments. Looking at the fabric category, for instance, one sees that some garments are described in terms of various kinds of linen, but none are described as being woollen (when logically, many of them must have been made of wool).[83] This suggests that there was an interaction between the assumptions that were made about clothing by the creators of the catalogue, and the other aspects of garments which were felt to require explicit description.

I thought that this relationship, and these assumptions, might be both recoverable and informative. While trying to figure them out myself, I encountered an article (describing analysis of Shakespeare's references to clothing and their relationship to the material reality of Elizabethan dress) which made reference to '*The Fashion System*' and propounded the utility of semiotic analysis as an analytical tool in a variety of research contexts.[84] Obtaining a copy, I discovered that it was indeed what I had been looking for – I had been misled by the title into thinking it was actually about Fashion.[85]

Semiotics is a complex field. In applying the analysis of description to these inscriptions, this chapter relies upon three basic ideas: a) That the relationship between a real garment and a garment described by language is one of equivalence rather than identity. b) That the meaning of a description, and its components, are not reducible to the terminological meaning of the words it contains. c) That in describing something, it is not necessary to describe ***every*** aspect, but only those which ***vary meaningfully in relation to the purpose of the description.***

The first two of these ideas are fundamental, but their justification in the 'Fashion System' is largely based on the analysis itself. The scope of this chapter allows only a relatively brief exposition, so the interested (or sceptical) reader is referred to the source.[86] The third idea, of meaningful variation, (and consequent opposition) in description, is the one which has been applied to the evidence directly. It is of course dependent on the others, but is therefore more fully explored here. I have made some suggestions as to the purpose of the descriptions in this catalogue above (that practically, their purpose is to enable the users of the catalogue to discriminate each individual garment, and that socially, their purpose is to convey

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[83] See Section 5.5
[84] Harris (1992)
[85] See n.13 above, and cf. Miller (1997)

the significant features of each garment as dedicated clothing). How might these purposes illuminate the specific descriptions of the individual garments? The idea of meaningful variation is that this relationship is **established** by the act of description – that the aspects of the garments singled out for description, **were,** by definition, those which varied meaningfully.

In itself, this provides a more satisfying explanation of the range of levels of detail in description displayed in this catalogue, than the idea that some of the garments were simply much less complex than others. A consideration of some of the garments that are described by a single type term, for instance, shows that although the absence of descriptions in some categories (like the decoration categories) is explicable by the absence of such features, the failure of the description to include others – especially colour, but also fabric and person – cannot be explained in the same way.[87] All garments possess colour, all are made of fabric, and all are worn, or intended to be worn, by someone. If these characteristics are not described, it is not because they **cannot** be described for that garment, but because to describe them would serve no purpose – these aspects, for that garment, did not vary meaningfully.

5.3 The theory of the 'written garment' and its application:

If Section 5.1 made a case for analysing these particular inscriptions as examples of the written description of clothing, its pre-condition is definition of the framework within which it will proceed. In this case, the framework has a dual origin. On the one hand, the text itself supplies (even without definite translations of all the descriptive terms) a number of categories, discussed above. Categorisation requires only the broadest understanding of what the individual terms signify, and therefore temporarily bypasses the difficulties of nuance involved in appreciating and translating the unusual examples. The tables above were created on these principles in order to gain an overview of the material, according to broad categories, which together encompass all the terms used for the one hundred and eighty-two complete and seventy-six fragmentary descriptions of garments.

On the other hand, these naturally arising categories can be viewed in terms of the more complex analyses, especially of the function and operation of different aspects of the description of clothing, undertaken by Barthes. Indeed, it would be inconceivable for a study of the description of clothing not to acknowledge the seminal work of Barthes. '*The Fashion System*' is among the most commonly quoted of his works, although the specific nature of its project might, on first sight, seem to limit its relevance. However, despite its title, the study is not concerned with fashion, its operation, or its effect on actual dress habits. Rather, it focuses on how this very ephemeral aspect of the significance of clothing is defined and communicated through written language. A very particular example (of the descriptions of fashionable clothing supplied in the French fashion magazines of the year 1958-9) is used by Barthes to demonstrate the practical application of the concept of a written 'vestimentary code,' but this example in no way exhausts the significance of the concept. The early chapters of the text, in particular, contain many subtle

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[86] Barthes (1990) especially as cited in this Chapter, for full discussion and references.
[87] See Tables, p.106-119

and powerful insights that are applicable to any study of dress which is based on written evidence. The most fundamental of these for this study, which has been stated above, is the idea that the relationship between communication through clothing and communication about clothing is one of equivalency, rather than identity (1990:4). This is to say that while clothing itself is a form of 'real' code, writing about clothing neither reproduces this direct code exactly, nor is reducible to the literal meaning of the words used themselves, but has an additional content which constitutes a 'vestimentary code.'

Barthes' examination of the vestimentary code and of the distinction between real, image and written clothing takes place entirely in the context of 'Fashion' as the signified, setting the specifics of his discussion on a fundamentally different plane to that appropriate here. But in fact, 'Fashion' provides only the test case: the discussion remains relevant because it considers in great and consistent detail the essential differences and relationships between 'real' and 'written' clothing, and every aspect of the function of the latter. Since it is clear that in the Brauron inscriptions, we are dealing with written clothing, it is possible, with care, to apply this discussion to the descriptions they contain.

5.4 The 'Written Garment': Codes, and Variants:

'The Fashion System' is a complex semiological project. This study makes use of three fundamental ideas. Firstly, the fact that Barthes establishes the 'written garment' as a subject for analysis distinct from, and in at least certain respects independent of, the 'real garment.' Secondly, the explicit formulation of the relationships between the different levels of meaning involved in description. "The real code presupposes a practical communication based on apprenticeship . . in general it is a matter of a simple or narrow communication. . .The terminological system implies an immediate communication (it does not need time to develop . . .) but one that is conceptual: it is a 'pure' communication. The communication set in motion by the rhetorical system is in a sense larger, because it opens the message to the social, affective, ideological world: if we define the real by the social it is . . .more real." (Barthes, 1990:31-33) This formulation is important here because it emphasises the separation of real, terminological and rhetorical codes; that is, it provides the rationale for considering the relationships between terms without particular reference to their 'objective' meanings: that the import of description does not necessarily reside at the terminological level.

And thirdly (with the most practical import for this discussion) Barthes' consideration of the nature and operation of 'variation' and 'opposition' in description. This conception is elaborately defined and structured in relation to the complex material and purpose of the fashion magazines that formed his subject. The purpose of description in this catalogue has been discussed above, now its relation to the idea of meaningful variation must be discussed. In the material studied by Barthes, the purpose of description was inevitably the signification and communication of Fashion. For these inscriptions however, it has been argued that the primary purpose of describing the garments was to distinguish them from each other, and

to render them recognisable to users of the catalogue.[88] Barthes distinguishes between many more variants, and classes of variants, than are necessary to encompass the range of terms used in the Brauron inscriptions, but nevertheless, even those which present themselves from this evidence bear recognisable similarities to those he identified.[89]

It is also possible to look at the conceptual oppositions that underlie classes of variants. In large part, these are 'simple common sense,' but since Barthes formulated and expressed their operation with a great deal of clarity and elegance, I have followed his definitions. First, however, the details of the idea of the 'variant' perhaps need a more detailed exposition. According to Barthes "variants do not present themselves as the simple objects of a nomenclature, even when sorted into classes of exclusions, but rather as *oppositions* having several terms."[90] (So far, the variants of the Brauron catalogue have been seen primarily in terms of 'classes of exclusions.' The category 'colour' excludes all those descriptive terms which do not have a colour meaning, etc). 'Variants' in this conception are the aspects of description which vary meaningfully in relation to each other, and may be classified in terms of how the variation seems to work, as well as the aspect of the garment whose variation is meaningful. To a certain extent, these correspond to the categories I have used in the table, illustrated by the example of fabric below.

Further "what defines the variant is that its terms cannot be actualized on the same support *at the same time:* a collar cannot be *open* and *closed* at the same time; and if *half-open* is the description, this means that *half-open* is as valid a term of the differential system as *open* or *closed.*"[91] Most fundamentally, "it must be kept in mind that meaning is not born of a simple qualification (*long blouses*), but from an **opposition between what is noted and what is not**; even if the synchrony being studied mentions only one term, the implicit term upon which its own distinction depends must always be

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[88] 'Users' in this context might mean not only the priestly custodians of the collection, but also all those who read the publicly inscribed catalogue. See above, p.99f

[89] Type = variant of identity [assertion of species]; Decoration/Coloured Decoration = variant of identity [assertion of existence]; Colour = variant of identity [mark]; Other Decoration = variant of configuration [form]; Fabric = variant of substance. (1990:115, 115,118, 119, 123ff respectively). The importance of being able to relate these to the categories arising from the inscription will become more apparent in considering the idea of opposition as it applies to variants.

[90] Barthes (1990:111)

[91] Barthes (1990:112) The notion of the support is not discussed here, because it is not generally explicit in the catalogue, which purports to describe the entire garment. It is however, implicit in the whole category of 'coloured decoration' where the terms often refer to an aspect of decoration, i.e. a border, which is in most cases not separately specified. The organisation of my tables in general conforms to this definition, but it will be noted that there are seven instances where the decoration category contains two terms, which would seem to contradict this. Generally, these seem also to be instances where an additional support is implied, so that, for example, in garment 179 (p.111) the garment as a whole is ποικίλον but has also a παρυφὴς in the appropriate hem area. Three of these (11, 168,261) involve the combination of καταστίκτος, ξυστιδωτὸς which may be similar, but may also indicate, as the only repeated combination, that the normal LSJ translation of the latter term should be reconsidered. It seems possible in this case that rather than referring to 'decoration in strigil form' the term is here intended to refer to the notable quality of the more common ξυστὶς, that of shorn pile. This term would therefore be more appropriately included under fabric. In addition, this point emphasises the distinction between vestimentary and terminological meaning.

reestablished. . . : thus, though blouses are never short, their length is sometimes noted (*long* blouses), so it is **necessary to reconstitute a significant opposition between *long* and [*normal*], even if this term is not explicitly stated.**"[92] This idea of opposition is perhaps most basic in considering the variant of colour, which Barthes considers as the 'Variant of Mark.'[93]

In addition, recognition of a term as a variant in itself automatically supplies it with a potential context. Part of this context is the other terms used for the same aspect of variation. In terms of meaning within the 'vestimentary code' each single term within a category (describing a particular area of variation) should be seen in relation to all the other terms which are, or indeed could be, used to describe the same area of variation.[94] Taking the example of 'fabric' as a category in the descriptions from Brauron, it can be seen that a variety of terms and variants appear.

5.5 Variants and Contexts: Fabric

The fabric may be specified in terms of its composition; *amorginon* (linen from Amorgos) *sindonites* (linen garment) *linoun* (linen) *trichapton* (lit. woven of hair); its quality *stuppinon* (coarse); its completion *hemihuphes* (half-woven); its finish *karte* (shorn smooth); or its age *kainon* (new). To take the first group, composition, it is now possible to suggest reasons why the variation in terms was meaningful. By far the most common designation is *amorginon*. From a statistical perspective, it would be tempting to say that most of the dedicated garments were made of '*amorgos*.' But, this, of course, is not the implication at all. '*Amorgos*' is a term for a specific type of linen.[95] Garments are so described because their composition was distinctive (not ordinary linen). So it can be deduced that *amorgos* was not a standard fabric for garments, although the catalogue shows that it was relatively common amongst these dedicated garments. The usual term for linen occurs only once, and there is applied to a *kandys* (a sleeved fitted tunic, probably of Persian design, certainly not a standard Greek garment[96]) implying that there was no assumed standard fabric for this garment, or that it could be made from a variety of fabrics.

There is one further point to be made about composition of fabric as an aspect of description. *Eria* (wool) is not used in any of the descriptions as a qualifying term for a garment. Rather, it appears as a dedicated object in its own right, along with other raw materials of fabric production, or with garments which were dedicated unfinished.[97] It is generally assumed that most Greek garments were made of wool, and this is reflected in these descriptions of fabric composition – **because** 'woollen' is never used as a qualification, and because there are **more** qualifying terms which indicate non-woollen composition. However, it does not therefore follow that all the garments not described as linen were woollen. Probably,

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[92] Barthes (1990:113). My emphasis in bold.
[93] Barthes (1990:117) See p.127
[94] Barthes (1990:87-160, esp.91) emphasizes a fundamental difference between the term as a word – opposed to all other words – and as a member of a class of variants – opposed to all other members of the class. See Glossary for illustrative eg. See p.134-47.
[95] Richter (1929:27-33) Linders (1972:20, 45)
[96] Miller (1997:155, 165-70, with full references) Bieber (1928:20) Pekridou-Gorecki (1989:73)
[97] See lines 53, 59, 72, 151, 172, 190, 249 and Glossary, No.36

the basic distinction between linen and wool as raw materials for fabric did not need to be drawn explicitly in every case. The most likely explanations for this would seem to be; either that some types of garment were accepted as almost always made of one or the other; or that the distinction was explicitly visually obvious to the Greek eye.

Composition is the most complex variant in the category 'fabric.' The other terms in this category are underlaid by implied oppositions that appear to be more straightforward. Considering quality shows why 'fabric' is treated as a single category, although strictly it contains a number of variants. The only descriptive term that explicitly relates to quality of fabric is *stuppinon*.[98] This would suggest [normal] or [fine] as the implied opposition. However, although the literal meaning of *amorginon* seems to be a geographical designation of the origin of the fibre, it is often, in other contexts, used with a connotation of 'fineness.'[99] So it seems possible that the opposition in this case would be: coarse – [normal] – fine.

The variant of completion seems less complicated. Some garments are designated half-woven or finished. The opposition in this case – [finished] – is obviously un-stated. However, there is a term in Greek – *polutelestatas* (completely finished) – available to fill the third place in a tripartite opposition, which is not used.[100] The description of age is a more vexed question. As has been noted above, it seems likely that garments were dedicated after use rather than made for dedication, and this is confirmed by the single occurrence of a description as new.[101] However, there is a potential third term in this opposition between new – [used]. The obvious candidate is *rhakos*, but I have not included this term in the tables, since I regard this as a notation of the state of the dedication, rather than an integral description of the garment.[102]

The last term from the fabric category – *karton* (shorn smooth) – might better be considered under non-pattern decoration. However, its listing in this category emphasises the independence of the categories used here from Barthes' groups of variants. In the conception of *'The Fashion System'* – based as it is on a much broader and more complete text sample – this would be accorded separate status, and including it in the fabric category would be conflating the variant with the support. I have done so to emphasise that it is the only term that describes the surface textural treatment of fabric as a decorative feature. It seems more likely to be a variant of the assertion of existence, like decoration, rather than (as the examples discussed above) a variant of substance.[103]

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[98] See Glossary, No.44. It is difficult to see whether the sense of the Greek word exactly mirrors that of 'tow' in being restricted to plant fibres, c.f. *amorginon*,

[99] See Glossary, No.34 and Labarre & Le Dinahet (1996:49, n.3)

[100] Possibly because the state of being 'completely finished' is incompatible with the garment having been used, after which it would have to be re-finished, by cleaning, fulling etc. See p.208-213, 227-28

[101] See Glossary, No.37

[102] Linders (1972:11, 58f, 61, 67) For a complete discussion cf. Gunther (1988:215-37) Added in iterations, therefore not integral, see n.54 above.

[103] See above, p.124 and Barthes (1990:115 c.f. 123ff)

5.6 Variant of Colour:

Probably the easiest variant to appreciate in these descriptions is colour, which can be classified as a 'Variant of Mark.' For this variant, the idea of opposition is very simple: marked colour is opposed to unmarked colour. The fundamental thing to notice is that one side of this opposition is un-stated. It exists even though we do not find a term for 'unremarkably coloured' in the text. Because of the importance of this for the consideration of colour, it seems worth quoting Barthes at length: "if the lack of an element is physically impossible . . . the mark will then allow the fact of existence to be significant; we cannot take the seam out of a garment . . .which should make it pointless to note that they exist; but they can exist emphatically, in the form of visible stitches . . .And because the mark is a superlative existence, its opposite itself is, we may say, raised a notch; it is no longer lack, it is simple existence deprived of accent – the neutral; we shall see how strong the variant *marked / neutral* can be . . . when invested in the varieties of the genus *color*: for color cannot know non-existence: nothing fails to be furnished with a color." (1990:118)

Turning to the catalogue then, forty-three of the garments with non-fragmentary descriptions are ascribed a 'base' colour.[104] The fundamental importance of the points made above is that this does not mean that there were only forty-three 'coloured' garments in the collection described by this catalogue, while the rest were 'colourless.' What it means is that the base colour of at least forty-three garments was worthy of marking, that they were 'emphatically' coloured, and by implication that a description which failed to note their colour would not be accurate, or promote recognition. To fully appreciate what this means for the role of colour as an aspect of clothing also requires considering other aspects of the descriptions, such as decoration and colour/garment combinations.[105] Here, however, we can consider the implications for individual colours.

Firstly, looking at colour as a variant of mark allows us to say unequivocally that 'white' and 'colourless' were not synonymous. That is, and this is worth emphasising, given the common conception of Greek dress, we cannot assume that when the colour of a garment or textile is not specified in its description this is because it was white. This can be stated because white *appears as a mark* in these descriptions of garments. Certainly, as has been noted above, it is the most common specified colour, but this very fact would seem to preclude it being either the 'standard' colour, or more generally a 'neutral' colour.[106] (Although in English 'neutral' can be considered to refer to a variety of specific physical colours or hues, this is not what is meant by 'neutral' in terms of the variant of mark, where it rather conveys the absence of significance, 'the simple existence deprived of accent').[107]

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[104] Sixteen of the fragmentary descriptions (p.117-9) also involve base colour, twelve of these being ἀλουργὸς. This preponderance is remarkable, but should perhaps be ascribed to the distinctiveness of the word in terms of form and of combination of letters, which may make it more readily identifiable than other terms whose component letter groups are more common.

[105] See p.148-51

[106] I argue this elsewhere for other reasons, including its prescription in the clothing regulations of cults (Ch.7) and from practical considerations of bleaching, washing and fulling (Ch.6) but this is the clincher.

[107] See p.225-28 on neutral colour and dyeing.

So far then, we seem to have three types of colour in these descriptions of garments – ἀλουργὸς (and φοινικιον) - whose presence either as base colour or decoration seems always to be marked, the other six colours, λευκος - white, κροκωτος - saffron, βατραχειοῦν - frog-colour, γλαυκεῖον - blue, and θαψινον and μηλινον - yellows, which are marked as base colours, and an indeterminate number of other colours which are not marked.[108] The distinct use of three terms whose hue content is normally regarded as specifying 'yellow' indicates a difference in their use as applied to textiles. [109] There is some justification for regarding all three as dye terms, which might therefore refer to particular colours, rather than to abstract colour categories.[110] However, with the exception of these three terms, there is no obvious quality that unites all of these marked colours, and explains why they were noted while others were not. The point of considering the variant of mark however, is to recognise the simple fact that colours are marked, and thus must have been remarkable. It is not strictly necessary to appreciate why, although it is certainly possible that the explanation lies not only in the colours themselves, but also in the types of garment for which they are marked.[111]

5.7 Variants of decoration:

The other important manifestations of colour in this catalogue are as an aspect of decoration. In fact, description of this type of colour is much more frequent and apparently significant that that of base colour. The variant of patterned decoration, which I have linked above with Barthes' 'Variant of the Assertion of Existence' differs in a number of respects from that of colour/mark. This "paradigm . . . does not oppose one species to another species, but rather the presence of an element to its absence."[112] The terms concerning decoration, then, each assert the presence of decoration, as opposed not only to its absence, but also to the absence of the other possible forms of decoration. Here again we have examples which would seem to be semantically and morphologically similar, but which, when they are looked at in the context of the group as a whole, can be seen to have different meanings in relation to clothing: i.e καταστίκτος (spotted) and ποικίλος (patterned) - the former more commonly refers to tattooing, which might suggest that it is more likely to refer to embroidery, the latter more generally to pattern. ποικίλος can frequently be translated also as multi-coloured in other contexts.[113]

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[108] See p.225-28 on unremarkable colours. See p.24-26, 37 on composition of γλαυκὸς.
[109] See Glossary, Nos. 27, 28, 32
[110] Both the crocus and the quince produce yellow dyes, as did the plant θαψος, see p.229
[111] See p.148-51
[112] Barthes (1990:115) also notes that "from a terminological point of view, there is sometimes interference between . . . assertions: in *a jacket with a belt,* the belt can be opposed to a half-belt or to its own absence."
[113] Multi-coloured because patterned s.v LSJ

In general, the decoration terms can be divided into two groups; terms for more general decoration, and terms for borders.[114] Decoration is described with varying degrees of specificity. On the one hand, although the terms are often translated in very similar fashion, the fact that they are used with discrimination within this single body of description demonstrates the existence of meaningful distinctions between their contents, even if these are no longer apparent. On the other hand, many of these basic terms also appear as compounds qualifying the extent of the decoration, e.g. μεσο- and περιποικίλος. This indicates that again we must imagine a kind of three tier conception, of no decoration, normal decoration, and decoration of unusual extent or location. In fact, the appearance of these specific terms for pattern introduces a further opposition, which must alter our perception of their more general counterparts. When a garment is described as ποικίλος the description is asserting the presence of decorative pattern, but the lack of a qualification of location or extent is not an oversight, rather a deliberate choice indicating that such a qualification was not appropriate to this specific garment.

5.8 Variants of coloured decoration:

It is interesting to compare the marking of base colour to the marking of colour in decoration. I have said above that decoration can be regarded as comparable to the 'Variant of Assertion of Existence' but strictly the terms for decoration of specified colour fall between the two categories, since the terms used frequently unite the qualification of an implied decorative term in terms of shape, size or location as well as colour. The colour, however, is marked. And, with one exception, the marked colour is ἀλουργὸς.[115] In the case of decorative pattern, to regard the absence of a marked colour as equivalent to the absence of colour is even less justifiable than for base colour.[116] However, it would not seem unreasonable to expect a similar range of marked colours to that which is found for base colour.

That this is emphatically not the case, that apparently the colour of the decoration is only worth noting if the colour is purple, deserves some comment. In fact, this concentration on purple serves to confirm the unique status of this colour, rather than to indicate that it was the most common colour for decoration. It suggests that the presence of purple on a garment was always worth noting, and this is supported by the use of terms, such as μεσο- and πλατυαλουργὸς indicating the extent of the decoration. The number of terms which indicate the presence of decoration is much higher even than the combined total for base colour and coloured decoration, but it would seem that unless the decoration was purple, it was simply its presence which was important or worthy of note.

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[114] i.e. παρυφης (with a woven border) περιηγητος, παραβολον, πεζιδα (all, 'with a border') πυργωτος (edged with a pattern like battlements, cf. Jacobsthal, 1938:213, fig.5) περικυματιος (with a wavy border). See Glossary, Nos. 5,7,8,9,10,11,14

[115] See n.67 above

6. Conclusions

This discussion has concentrated on the **fact** of certain features being described, and on distinctive aspects of **how** these features are described. It has emerged that colour (including decorative pattern) is described in complex and detailed ways, despite the gaps in our knowledge of the exact denotation of the terms as part of the terminological code of the Greek language. This highlights the overall importance of colour and decoration in not only these specific, but also general Greek, descriptions of clothing: a wide variety of terms were clearly available to describe decoration, qualified and combined in many different ways to achieve exact specifications.[117] It is also clear that the description of the **colour** of garments is much more complex and detailed than the restriction to eight specific colour-terms would suggest. The terms used to describe purple as a feature of garments are particularly specific, but the multiplicity of variables which are used to indicate the presence of pattern on garments, without specifying its hue, allow us to conclude that the presence of **varied** colour on garments was of great importance.

To comment any further on the patterns of description would require detailed commentary, not strictly essential to the subject of this thesis.[118] Even in a brief examination such as this, it has been possible to come to a number of conclusions. The most significant of these from the perspective of colour are:

a) that only a limited number of colours are marked in description;
b) that these include white;
c) that in terms of the physical manifestation of colour on garments, decoration seems to have been at least as significant as 'base colour';
d) that the colour of decoration was generally only marked when it involved purple;
e) and that in terms of the level of attention they receive in description (and by implication their importance in distinguishing between and identifying garments) colour and coloured features are second only to garment type.

I have tended to concentrate on the practical function of descriptive variants in distinguishing between garments, so it should be re-emphasised here that this is not the only level on which they should be considered. Only twenty-three of the 182 garments whose description survives complete were not also identified by the name of their dedicator, and although a close reading of the text reveals occasional repetition of dedicants' names, this is not of a sufficient extent to interfere with the logical possibility of identifying the garments primarily on this basis. (Nor is it the case that the complex descriptions can be ascribed to the absence of the dedicant's name, since ἀγραφος garments occur across the range of one to

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[116] Although it is possible to create patterns which are woven or embroidered in the same colour as the fabric which supports them, the effect is inevitably rather subtle and reliant on the play of light on the textile.

[117] The Glossary has been arranged according to category, so it is instructive in this respect to compare the length and complexity of the colour categories to the others.

[118] However, one can make use of the idea of opposition in looking at the combinations of terms which are applied to particular types of garment and not to others, see p.148-51

six-term descriptions).[119] That is, there were other possibilities available to distinguish these garments, which would have fulfilled the purely abstract or utilitarian purpose of the catalogue. *What such potential systems would not have done is accurately describe the socially or culturally significant features of the garments, the essence of the vestimentary code.*

Most importantly for the thesis as a whole, the evidence of these inscriptions has therefore allowed access to the assumptions about clothing, and about the place of colour and decoration within it, which form the normative background to the positive description of colour and decoration in clothing by other sources. Of almost equal importance has been the introduction of pattern as an immensely important aspect of colour in Greek clothing. On the evidence of this catalogue, it eclipses 'base colour' in terms of both incidence and variety.[120] The characteristics of the description of decoration by this catalogue (its overall prominence and exclusive use in descriptions, the wide variety of specific terms, and especially the fact that its colour is rarely specified) provide independent support for the contention of previous chapters: that colour in Greek clothing cannot be considered purely from the perspective of hue.

This chapter has drawn some specific conclusions in passing, and more are made in the Appendix below, but its overall purpose has been to assess the **place** of colour in Greek clothing. It has been possible to use this evidence to do so because it constitutes a true text sample of vestimentary code which, although naturally not complete, encompasses **all** aspects of clothing found salient by the cataloguers. This study has deliberately considered the evidence as a whole – the colour references have **not** been abstracted, either by the catalogue itself, or the researcher.[121]

In terms of the overall purpose of this thesis then, the most important conclusion to be drawn from this chapter is that colour (of some kind) was second in importance only to garment type in Greek ideas of clothing.[122] Further, unlike in the prefatory chapter, some conclusions can now be drawn about that parenthesis. This chapter has identified four 'kinds of colour' in clothing:

a) colour which is present in the form of decoration, of specified colour;
b) colour as above, but of unremarkable specific colour;
c) a restricted range of marked, remarkable 'base colours,' most of which are indicated using specific terms for colour in textiles, not general colour-terms.[123]
d) an undefined range of unmarked, unremarkable 'base colours.'

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[119] See p.97 especially n.45
[120] It should be noted that pattern, by its very nature, depends on a comparable distinction between differentiated/undifferentiated, or remarkable/unremarkable (as were argued above for colour conception, the description of various aspects of clothing, and the marking of colour) because its visual impact consists of the contrast between normative background fabric and structured, salient, created, foreground decoration. It also often depends, as can be seen from its effective depiction in black- and red figure vases, particularly on value contrast. See Carroll (1965) for a complete discussion of patterned textiles in art, and Miller (1997:153-87) for a good summary relating to Athens.
[121] cf. p.154-5
[122] The relationship between these two aspects is discussed p.148-51
[123] See p.138ff & p.58

These 'kinds of colour' have been established through an independent, overall, analysis, of material whose context and nature dictate that the cultural, social, and conceptual bases of the salience it reveals are implicit, not explicit. The necessary next step, therefore, is to consider them from the perspective of other types of evidence, in which colour is reified, not described, by its representation – drama and polychrome art.[124]

[124] Barthes (1990:12) "In literature, description is brought to bear upon a hidden object (whether real of imaginary): it must make that object exist." For this collection and its custodians "the described object is actualized, given separately in its plastic form."

Appendix Three – Glossary, and Discussion of Colour in Different Garment Types

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G. 1 - Decoration Terms

Term used, related terms:	**Definition, related & possible definitions**	**Suggested Gloss**	**Index:**	**No.**
thermastin	(perh.) = *thermastris*, of a garment, *IG* II^2.1514.29; 1515.21; 1516.8 therefore, perhaps = *tong pattern*	*tong pattern*	[*5*][1] 28	1
thermastris	*tongs* used by smiths, generally *pincers, pliers.* 2. *a violent dance* in which the legs are crossed *tong-fashion.*	-		
katastiktos	***spotted, speckled, brindled*** of a dog – S.*Fr.*11 of hide – E.*Ba.*697 of a woodpecker – Arist.*HA.* of garments – *IG* II^2.1514.11 al. of clothing (*esthes*) – Arr.*Ind.*5 cf. Men.1019 ***tattooed*** Str.7.5.4, metaph. 2.5.33, 17.3.1	*embroidered*	[*1*] 9, 58, 138, 265, 278 [*2*] 38, 11, 168, 6, 56 [*3*] 160 [*f*] 67, 202, 218, 305	2
kata-	(in compounds) *downwards, down,* or, to strengthen the notion of the simple word.	-		
stizo	*tattoo, mark*	-		
stiktos	*pricked, tattooed* *spotted, dappled*	-		
mesopoikilon	See *meso-* and *poikilos* (prob.) = ***patterned in the middle***	*patterned in the middle*	[*3*] 127	3
meso-	*middle, in the middle*	-		
xustidotos	***garment with ornament in strigil form*** IG II^2.1514.11	*See p.52 for discussion*	[*2*] 11, 168 [*3*] 261	4

[1] Numbers in brackets indicate no. of descriptive terms used in total description that term participates in. Letter 'f' indicates fragmentary description.

xustis	n. ***robe of rich and soft material reaching to the feet*** – Ar.*Lys.*1190, Antiph.99, Eub.90.3., Theoc.2.74, Ar.*Fr.*320 (*xustida*), Eub.135, Plu.2.406d worn by great men – Ar.*Nu.*70 cf. Pl.*R.*420e by tragic heroes – Cratin.268, Duris 14, 70J, cf. Harp. s.v., *AB*284 **II. *garment made of cut (shorn, clipped) fabric*** (from *xustos,* lit. *shaved*) Epich.97, Diph.52 vb Il.14.179	*See p.52 for discussion*		4a
para -	(in compounds) ***alongside of, beside to the side of, to***	-		-
parabolon	**III.2 *border along the edge of a garment*** IG II^2.1514.41 From *paraballo – throw beside*	*border (at the side)*	[*3*] 39 [*5*] 40[2]	5
parapoikilon	= *para- poikilon*	*pattern (at the side)*	[*3*] 244, 270	6

parhyphes	**n. *border woven along a robe*** IG II^2.1514.29, Clearch.9, Phylarch.45J, Plu.2.239c, Gal.18(2).791 **adj. *with a border, bordered robe,*** A.*Fr.*320.7, Poll.7.53	*woven border* *[garment] with a woven border*	[*1*] 177 [*2*] 322, 179, 111 [*3*] 71, 28 [*f*] 180	7
parhyphaino	*weave beside or along*	-		-
pezida	**= *border*** Ar.*Fr.*485, *IG*2^2 1525.4	*border*	[*3*] 104, 286 [*5*] 238, 251, 160	8
periegeton	***with a border around it,*** Antiph.153, IG II^2.1514.52	*with a border (all around)*	[*1*] 18 [*2*] 43, 52 [*3*] 21, 275, 323	9
peri-	*round about, all round*	-		-
parakymation	See *para-* and *kymation*	*wavy border (at the side)*	[*4*] 46 [*f*] 200	10
perikymation	See *peri-* and *kymation,* therefore	*wavy border*	[*5*] 17	11

[2] Also see No.33 - *phoinikoun*

	probably *a wavy border*	*(all round)*		
perikymon	*surrounded by the waves,* of islands	-		-
kymation	Dim. of *kyma,* I.3: Architectural *waved moulding*	-		-
peripoikilon	***variegated, spotted*** X.*Cyn.*5.23 cf. *IG* II^2.1514.8	*patterned all over*	[*2*] 121, 315 [*3*] 12, 276, 42, 317, 176 [*4*] 7 [*f*] 344	12
peristikton	= *peri- and stikton*	*embroidered all over* [*2*] 285		12a
poikilon	***many-coloured, spotted, pied, dappled*** of chitons – Hdt.7.61 **II.** ***wrought in various colours,*** of woven or embroidered stuffs – Il.5.735 al.; Il.14.215; S.*Fr.*586; A.*Ag.*923, 926, 936; Theoc.15.78; Cratin.38; *IG* I^2.387.28; of Cyprian, Carthaginian & Sicilian stuffs, Ar.*Fr.*611, Hermipp.63.23, Philem.76.4 4. of drugs, *complicated* III.3. *intricate, complex* etc.	*patterned*	[*2*] 19, 48a, 274, 329, 179 [*3*] 14 [*4*] 178, 31, 238,251 [*f*] 1, 294	13
purgoton	***edged with a pattern like battlements*** Callix.2; *IG* II^2.1514.26, 46; Str.15.3.19	*edged with a pattern like battlements*	[*2*] 25 [*3*] 126 [*5*] 46	14
semeion	= *mark, sign, symbol* Hsch. ; IG.5(1).1390.16 (Andania iBC) IPE.1^2.352.25 (Chersonesus iiBC) IG.12^3.452 (Thera ivBC) *also* s.v. *sema*	*marks, designs*	[*4*] 31	15

See also lines 33 [ζωια δεξιουμενα]
34, 40, 69 [ιερον επιγεγραπται]
7 [γραμματα ἐνυφασμενα]

G.2 - Coloured Decoration Terms

Term Used, related terms	**Definition, related & possible definitions**	**Suggested Gloss**	**Index**	**No.**
mesalourges	See *meso–* and *halourgos*	*purple in the middle*	*[2]* 234, 234, 269, 319	16
mesmoalourges	= As above	*purple in the middle*	*[3]* 317	17
paralourges	See *para-* and *halourgos*	*with purple border*	*[2]* 122, 144, 321, 326 *[3]* 27, 247, 270, 114 *[4]* 69	18
paralourgidion	See *para-* and *halourgidion*	*purple bordered garment*	*[3]* 54	19
platualourges	***with broad purple border*** *IG* II^2.1514.17	*with broad purple border*	*[2]* 116, 145, 146 *[3]* 17, 46 *[f]* 76, 199, 339	20

G.3 – Person Terms[3]

Term Used	**Definition**	**Suggested Gloss**	**Index**
andreion	*= man's*	*man's*	*[2]* 47, 118, 120, 279
gunaikeion	*= woman's*	*woman's*	*[2]* 145, 142, 16, 151 *[3]* 17
paidei	*=child's*	*childs*	*[2]* 139, 114, 58 *[3]* 108, 28, 40

[3] I have not included references for the gender terms, which are not disputed.

G.4 - Colour Terms[4]

Term Used, related terms	Definition, related & possible definitions	Suggested Gloss	Index	No.
halourgos	= ***Wrought in the sea, sea-purple*** *ie.* ***genuine purple*** A.*Ag.*946 ; Pherecr.100 ; Anaxandr.41.7 ; Arist.*Col.*792a7 ; Pl.*Phd.*110c	purple	[*1*] 243 [*2*] 49 [*3*] 12, 14 [*f*] 93, 130, 191, 231, 246, 247, 283, 296	21
halourgidos	= ***A purple robe*** Ar.*Eq.*967 ; IG.2.754 ; Chamaeleon.ap.Ath.9.734a ; Luc.*Nav.*22	purple garment	[*2*] 56 [*f*] 86, 134	22
batrachis	= ***A frog-green garment, coat*** Ar.*Eq.*1406 ; IG2.754.16 ; D.*C.*59.14	green garment	[*1*] 16a, 48 [*2*] 266	23
batracheioun	= *of, or belonging to a frog,* ***frog-colour, pale green*** Ar.*Eq.*1406; Nic.*Fr.*85.5	green	[*3*] 127, 276 [*4*] 178 [*f*] 257	24
glaukeion	= *glaukinos IG* 2^2.759ii II (ivBC)	blue	[*2*] 136, 155, 270	25
glaukinos	= ***bluish-grey*** Plu.2.821e cf. 565c	-	-	26
thapsinon *kroke thapsinon* *thapsos*	= ***yellow-coloured, yellow, sallow*** Plu.*Phoc.*28; Callix.2 ***Yellow wool*** ; IG.I^2.330.17 = *fustic (Rhus Cotinus) used for dyeing yellow, brought from island of Thapsos* Theoc.2.88; Nic.*Al.*570; Thphr.*Fr.*170	(Thapsos) yellow	[*3*] 247	27
krokotos	= ***Saffron-dyed*** 2.= (as subst.) ***Saffron-coloured robe*** a) ***Worn by women*** b) ***As an offering in temples*** c) ***Worn by Dionysos (over chiton)*** d) ***Worn by effeminate men*** Pi.*N.*1.38 2.a) Ar.*Th.*138 ; Ar.*Ec.*879 ; Ar.*Lys.*44 b) IG.1{2}.386.22 ; IG.2{2}.1514.60, 62 c) Cratin.38 ; Ar.*Ra.*46 d) Arar.4 cf Callix.2 ; Duris 12J	saffron-dyed a saffron-dyed garment	[*1*] 172, 318 [*2*] 82, 308, 60, 62, 232, 235, 248 [*3*] 58 [*4*] 251 [*f*] 81, 194, 298	28

[4] All colour term glosses are included as approximate for easy reference. Please see other chapters for discussions.

krokotinon	= *krokotos* Ezek.*Exag.*260; *CPR* 27.9; *PHamb10.24*	*a saffron-dyed garment (small or fine)*	[*3*] 327	29
krokotion	= (Diminutive of *krokotos*) Poll.7.56	*a saffron-dyed garment (small or fine)*	[*1*] 328	30
leukon	= ***white***	*white*	[*2*] 20, 112, 128, 164, 165, 169, 180, 266, 268 [*3*] 126, 244, 27, 16, 104, 286 [*4-6*] 69, 108, 40, 46 [f] 196	31
melinon	= *Made of apples or quinces* 2.= ***Of a quince yellow*** 2. Thphr.*HP*.9.18.1 ; Ath.12.539e ; D.*S*.2.53 ; Dsc.3.137 ; Schwyzer462b.34 (Tanagra iiiBC) Thphr.*HP*.6.2.8 ; 7.3.1	*quince yellow*	[*3*] 107	32
phoinikoun	= ***Purple-red, crimson or red*** Xenoph.32.2 ; Pi.*L*.4(3).18(36) ; Hdt.1.98 ; 2.132 cf. 7.76 ; 9.22 ; Hp.*Int*.29	*crimson*	[*4-6*] 40[5]	33

[5] See *parabolon* No.5

G.5 Fabric Terms

Term Used, related terms	Definition, related & possible definitions	Suggested Gloss	Index	No.
amorginon	= ***Made of Amorgian flax***, *or made in Amorgos* Ar.*Lys.*150 ; Pl.*Ep.*363a; Antiph.153; IG.2.754.10; Clearch.25; Eup.241; Aeschin.1.97; Poll.7.74; St.Byz. *EM.*129.15 cf. 86.16 ; Sch.Ar.*Lys.*150	*of fine linen*	[*2*] 10, 22a, 61, 110, 149, 153, 173, 175, 273, 273a, 303, 312, 346 [*3*] 317, 107, 176, 51, 63, 64, 328, 170 [*4*] 238 [*f*] 2, 85, 92, 195, 195	34
amorgis	= *Fine flax from Amorgis: stalks of mallow used like hemp or flax, perhaps from Amorgos as place of growth* Ar.*Lys.*735 ; Ar.*Lys.*737			
eirgasmena/ *ergazomai*	= *work, labour*	*worked*	[*2*] 302	35
hemihuphe	= ***half-woven*** Aen.Tact.29.6; *IG*2^2 1522.26; 1524.213, etc.	*half-woven*	[*2*] 53, 59, 172, 249 [*3*] 151 [*f*] 72, 190	36
kainon	= ***new, fresh, newly-made*** Hdt.9.26; A.*Eu.*406; A.*Ch.*659; S.*OC.*722 cf. *Ph.*52; S.*OT.*916; S.*Tr.*613; *SIG*1026.26 (Cos, iv/iiiBC) *IG*2^2 1623.289; *Plond* 2.402v12 (iiBC)	*newly-made*	[*4-6*] 31	37
karton	= ***shorn smooth*** *IG*2^2 1514.40	*shorn smooth*	[*3*] 39 [*4-6*] 28, 40	38
karte	= *a kind of garment* JubaHist.85			
kateirgasmena	= *ergasomai*, above	*worked*	[*3*] 143, 250 [*f*] 95, 226	39
linoun	= ***of flax or linen*** Hdt.1.195 ; 3.47 ; Pl.*Cra.*389b ; Arist.*HA.*616a.6 ; BGU.1036.14 (iiAD) ; Call.*Aet.*3.1.37 ; Hdt.7.36 ; A.*Fr.*206 ; Ar.*Fr.*19 ; Schwyzer462.B39 (Tanagra iiiBC)	*linen*	[*4-6*] 178	40
liton	= ***simple, inexpensive, frugal*** Ps-Phoc.81; Epicur.*Ep.*3p63U; Men.633; Crates.*Theb.*10; Ath.5.191f; Plu.2.668f cf. 125d; Epicur.*Fr.*478; M.Ant.1.3; Men.442; Jul.*Caes.*317c; *Michel.*832.17 (Samos, ivBc)	*simple, cheap*	[*3*] 170	41

malaka	= ***soft*** Il.9.618, 2.42, 24.796; Od.3.38, 4.124; *PSI*.4.364[5] (iiiBC); D. 47.52	*soft*	[*2*] 57a, 141 [*3*] 143, 250	42
sindonites *sindon*	= ***A garment made of 'sindon'*** Str.15.1.71; *IG*.II[2].1525.6 ; Men.*Sam*.163 ; *PHib*.1.121.16 (iiiBC) = ***Fine cloth, usually linen*** 2.= *Anything made of such cloth;* ***garment of linen*** b) = ***winding sheet*** Hdt.1.200 ; 2.95 ; S.*Fr*.210, 67 ; S.*Ant*.1222 ; Hdt.2.86 ; 7.81 ; Theophr.*HP*.4.7.7 ; Str.15.1.20 **2**. Michel.832.19 (Samos ivBC) ; *PCairZen*.176.255 (iiiBC) ; SIG.{2}.754.5 (Pergamum) ; *PTeb*.182(iiBC) ; UPZ.84.4(iiBC)	*fine linen garment*	[*1*] 106	43
stuppinon ***stuppeion***	= ***of tow, like tow*** *IG*2[2].1414.26; 1527.34; *PCairZen*.755.6 (iiiBC); Ph.*Bel*.102.15; D.*S*.1.35 = ***the coarse fibre of flax or hemp, tow, oakum*** Hdt.8.52; X.*Cyr*.7.5.23; D.47.20; Aen.Tact.33,35; Plb.1.45.12, 5.89.2; D.*S*.14.51; Plu.*Cic*.18; Gal.16.622 etc.	*coarse*	[*2*] 115, 150, 269, 300, 264, 325 [*3*] 327, 280 [*f*] 98, 297, 330, 180	44
trichapton	= ***plaited or woven of hair*** Pherecr.108.28; *IG* 11(2).287A53 (Delos, iiiBC) Lxx.*Ez*.16.10, 13 cf. Poll.2.24, 10.32	*woven of hair*	[*5*] 160	45

G.6 - Other Decoration Terms:

Term Used, related terms	Definition, related & possible definitions	Suggested Gloss	Index	No.
haploun	= ***single*** A.*Fr.*239 cf. X.*Cyr.*1.3.4; Th.3.18; S.*Aj.*277; S.*Tr.*619; E.*IT.*688	*single*	[*3*] 54, 51, 328	46
eptugmenon / *ptusso*	= *fold, double up (of garments)* Od.1.439, 6.111,252; Hp.*Fract.*8; etc.	*folded*	[*2*] 111	47
diploun	= ***Twofold, double,*** *properly of* ***cloaks and articles of dress.*** *Il.*10.134 ; 4.133 ; *Od.*19.226 ; Apollod.*Car.*4; Th.1.133 ; Hdt.6.104 ; S.*El.*1415 ; Ar.*Lys.*1.9	*double*	[*2*] 60, 62, 248 [*3*] 64, 65 [*4*] 108, 251 [*f*] 67, 249	48
isoptuches *ptugma*	= ***with similar (equal) folds*** *IG*2^2 1518.82, 84 = *Fold, or anything folded* Il.5.315 cf. *AP6.*271 (Phaedim.) ; Antyll.ap.Orib.45.15.8 ; Paul.*Aeg.*3.64	*with equal folds (pleated)*	[*2*] 232, 235 [*3*] 63, 65 [*f*] 227, 239, 188, 195	49
ktenoton	= (perh.) ***Scallopings on a garment*** IG.I^2.386.8	*scalloped*	[*2*] 45, 51a, 119, 316 [*3*] 30, 42, 171, 317, 323 [*4*] 7 [*f*] 79	50
pasmatia	= ***spangles*** *IG*2^2 1524. 187, 181	*spangles*	[*2*] 260 [*3*] 238, 160	51
chrusa	= *golden*	-	-	-
epichrusa	= *gold plated* Hdt.1.50 *al.*; *IG* 1^2.880; X.*Mem.*3.10.4; Longus.1.5; etc.	-	-	-
sunerammenon	= ***Sewn together, gathered*** Arr.*Tact.*35.3 ; Gal.18(1).773; Arist.*GA.*752a4; Ath.8.362e; Isoc.5.138	*sewn together, gathered*	[*2*] 123	52
cheiridoton *cheiris*	= ***Sleeved ; i.e. chiton as worn by Asiatics ; also of the Gallic*** χιτων σχιστος Hdt.7.61 cf. *PTeb.*46.34 (iiBC) ; Philostr.*Im.*128 ; Hdn.5.3.6 ; Str.4.4.3 = ***Covering for the arm; loose sleeve as worn by Persians.*** Hdt.6.72 cf. X.*Hg.*2.1.8 ; X.*Cyr.*8.3.14 ; *PLips.*40iii23(ivAD) ; Plu.*Oth.*6 ; Luc.*JTr.*.41	*sleeved*	[*2*] 320, 6 [*3*] 275, 261	53

psilon	***= bare, stripped, smooth*** Od.13.437; Hp.*Aer.*19; Ar.*Th.*227; Pherecr.23.4; X.*Cyn.*3.2; Pl.*Plt.*266e; Callix.2; *PSI* 7.858.2 (iiiBC); Lxx.*Jo.*7.21	*bare*	[*5*] 160	54

G.7 – Garment Type Terms:

Terms Used, related terms	**Definition, related & possible definitions**	**Suggested Gloss**	**Index**	**No.**
ampechonon *ampecho*	***= A fine shawl (worn by women and effeminate men)*** *2.* ***= Clothing; [pl] modes of dress*** Pherecr.108.28 ; 2. X.*Mem.*1.2.5 etc ; Pl.*R.*425b Ar.*Fr.*320.7 ; IG.2.754 ; Theoc.15.21 *= 1. To surround, cover ; 2. embrace* 1. Od.6.225; Pl.*Prt.*320e; S.*OC.*314; E.*Hipp.*192; E.*Tr.*12; Aret. *SA.*2 ; 2. E.*Supp.*165	*ampechonon* *an expensive cloak*	[*1*] 36, 177, 240 [*2*] 34	55
enkuklon *egkuklos*	***= Woman's upper garment*** Ar.*Th.*261 ; Ar.*Lys.*113 ; IG2.754.48 *= Circular, round* Epicur.*Ep.*2.p.52u ; Matro.*Conv.*116 ; Ezek.*Exag.*77 ; Gal.18(2)439	*enkuklon,* *a wrap*	[*2*] 165, 180 48a [*3*] 317	56
epiblema	***= That which is thrown over, covering*** *= coverlet, bedspread* ***= head covering*** 2.***= tapestry, hanging*** II ***= that which is put on, piece of embroidery, mantle.*** Nicostr.*Com*15; *IG.*2(5).593.4 (Iulis v BC) ; Gal.14.638 ; Gal.UP.11.12 ; Sor.1.85 2. Plu.*Cat.Ma.*4 ; Arr.*An.*6.29.5 II. *IG.*I^2.387.28 ; *IG.* II^2 1514.31; Lxx.*Is.*3.22	*epiblema,* *a mantle*	[*2*] 33, 329 [*3*] 31	57

eria	= ***Wool*** Il.12.434 ; Od.4.124 ; Pl.*Smp.*175d ; Pl.*R.*.398a ; Hp.*Fract.*21 ; Dsc.2.74 ; *PCairZen.*12.62 (iiiBC) Ar.*V.*1147 ; Eub.90.3 cf. Amphis.27.1 GDI.iv.p876 (Chios ivBC)	*wool*	[*2*] 155, 57a, 41, 302 [*3*] 143, 250 [*f*] 223, 298	58
zoma	= ***Loin-cloth, drawers (worn next to the body in boxing or war)*** 2. = ***ενδυμα*** II. = ***ζωνη, woman's girdle*** Il.23.683 ; 4.216 ; Od.14.482 ; Alc.15.6 2. A.*Fr.*246 II. Alc.*Supp.*8.10 cf. S.*El.*452 ; IG.2{2}.1514.15 ; Ar.*Fr.*320.7 ; Men.432 ; *AP6.*272 (Pers.)	*girdle*	[*1*] 150 [*2*] 268 [*3*] 142	59
dipterugon *pteron* *pterux*	= ***mantle with two 'ptera'*** *IG*2^2 754. 38; *Jahresh.*16; *Beibl.*53 = ***ptera Thettalika were the fluttering corners of a chlamys*** Poll.7.46 = ***II. 4*** **flap** *of a Doric chiton* *Ar.*Fr.*325; Men.*Epit.*187,* Com.Adesp.*17.1D.; Plu.*Comp.Lyc.Num.*3;* *Poll.7.62*	*dipterugon, a mantle with 2 decorative corners or flaps*	[*2*] 38, 173 See also line 171, *ptera*	60
himation	= (Diminutive of *hima = A piece of dress, but always used of)* ***An outer garment formed by an oblong piece of cloth worn above the chiton*** II.= (generally) ***Cloth*** 2. = (generally) ***Clothes, grave clothes*** *IG.*5(1).1390.16 al. (Andania iBC) Ar.*Ec.*333 ; *IG.*II^2.1524.205 al.; D.24.114 etc. Ar.*Nu.*179 al ; D.19.314 ; Pl.*Alc.*1.122c Hdt.1.9 ; Pl.*Plt.*279e ; D.27.10 ; Hippon..83.1; Ar.*V.*408 ; Ar.*Lys.*1093 ; *IG.*12(5).593.2 (Iulis v/iv BC) ; Plu.*Sol.*21	*himation cloak*	[*2*] 20, 128, 164, 169, 144, 234, 234a, 324, 326, 47 [*3*] 27, 114, 16, 151 [*4*] 69, 17 [*f*] 80, 83, 337	61

	Il. Hdt.4.23 ; D.*S.*14.109 ; Ael.*VH.*8.7 ; Iambl.*VP.*21.100 ; *IG.*1^2.427 ; 386.18 ; *IG.*II^2.1514.16 etc.			
kalumma	= ***Head-covering, veil*** Il.24.93 ; *h.Cer.*42 ; B.16.38 ; A.*Ag.*1178 ; S.*Tr.*1078 ; E.*IT.*372 cf. Ar.*Lys.*532 ; Ar.*Fr.*320 ; Dicaearch.1.18 ; S.*Aj.*245 ; S.*El.*1468	*veil*	[*1*] 163, 320, 323, 324 [*2*] 123 [*f*] 3	62
kandun	= ***Persian double or upper garment with sleeves.*** X.*Cyr.*1.3.2 ; X.*An.*1.5.8; Luc.*DMort.*14.4 ; Them.*Or.*2.36c ; *IG.*II^2.1514.19	*Persian garment*	[*1*] 163, 281 [*2*] 19, 260 [*3*] 176 [*4*] 178	63
kekruphalos	= ***Woman's hair net/cloth*** Il.22.469 cf. Hp.*Steril.*219 ; Ar.*Th.*138 ; D.*H.*7.9 ; Ar.*Th.*257 ; *AP5.*209 (Paul.Sil.) ; *AP5.*275 (Agath.)	*hair cloth*	[*1*] 241 [*2*] 274 [*3*] 104, 286	64
kithoniskon	Ionic form of *chiton*	*chiton*	[*3*] 270 [*f*] 346	65
lasion *lasios*	= ***a rough cloth*** Sapph.89; Theopomp.*Com.*36 cf. Artem.Gramm. ap. Erot; Hp.*Acut.(Sp)*37 = ***shaggy, woolly*** Il.24.125; Od.9.433; S.*Ph.*184; Theoc.22.42; Emp.27.2; X.*Hg.*4.2.19; Pl.*Cra.*420e; etc.	*lasion, a shaggy garment*	[*1*] 105	66
ledion	= ***(diminutive) A cheap common dress, or a light summer dress.*** Alcm.97 ; *IG.*II^2.1514.45 ; 1516.23 ; 1517.149 (ivBC); Men.1028 ; Clearch.25 ; Macho.ap.Ath.13.582; Hsch. ; Ar.*Av.*715, 915	*ledion, a light dress*	[*1*] 44, 45a [*2*] 322 [*f*] 228	67
xenike	= ***of foreign kind*** A.*Supp.*618; E.*Cyc.*370; Hdt.1.135, 172; Pl.*Lg.*702c; Alex.290; Diph.32.27; etc	*a foreign garment*	[*2*] 49	68
tarantinon	= ***Garment made of a diaphanous material.*** Men.*Epit.*272 ; Semus.20 ; Nicostr.*Com.*40 ; *IG.*7.2421.3 (Thebes) ; Aristaenet.1.25 ; Hsch.; Phot.; Suid. ; Sch.Ar.*Lys.*45	*tarantinon, a diaphanous garment*	[*1*] 37, 124 [*2*] 249 [*f*] 4, 68, 68, 133, 186, 254	69

tribon	= ***A worn garment, threadbare cloak; worn by Spartans; by philosophers.*** E.*Fr.*282.12; Ar.*Ach.*184, 343; *PCairZen.*92.19; 519.11 (iiiBC); Sammelb.7451.149 D.54.34 cf. Duris.14J Pl.*Smp.*219b; Pl.*Prt.*335d; Crates.*Theb.*16; Arr.*Epict.*3.1.24; Zeno.*Stoic.*1.63; Plu.2.322a	*tribon, a poor cloak*	[*1*] 22	70
truphema	= *object in which one takes pride or pleasure* E.*IA.*1050 [in pl. generally] *Luxuries* Alciphr.1.12 = *a garment* A.*Fr.*320.7; Polyzel.11; *IG*2^2 1518.69, 1524.199	*truphema, a luxurious garment*	[*1*] 127, 278 [*2*] 82, 285, 273 [*3*] 81	71
chithoniskos	= Ionic form of *chitoniskos*	*chitoniskos*	[*4*] 7	72
chiton	= ***Garment worn next to the skin, tunic*** I.= ***Originally only men's tunics, later also women's.*** **I.** Od.15.60; 14.72 ; 1.437; 19.234; Il.24.580; Hdt.1.155 ; Hes.*Op.*537 ; Hes.*Sc.*.287 **(women)** Hdt.1.8 ; 5.87 ; 1.195 ; Theoc.2.73 ; Th.1.6 ; Eust.954.50 ; I.*D.*2.81 ; 7.91	*chiton, tunic*	[*1*] 241 [*2*] 25, 264, 10, 175, 269, 273, 303, 312, 325, 346 [*3*] 317, 170 [*f*] 66, 74, 94, 129, 158, 221, 253, 256, 306, 330, 341	73
chitonion	= *(Diminutive of χιτων)* ***Properly woman's frock or shift. Also of men's wear.*** Ar.*Ra.*414 ; Ar.*Pl.*984 ; Ar.*Lys.*48, 150 ; Ar.*Fr.*325, 632 cf. *IG.*1^2.386.23 ; 387.34 ; *IG.*II^2.1514.51; 1517.125 ; *PCairZen.*776.8 ; Luc.*Merc.Cond.*37 ; Stratt.71	chitonion	[*1*] 169 [*2*] 315, 22a, 59, 61, 110, 115, 149, 150, 153, 300 [*3*] 280, 247, 327, 51, 63, 64, 328, 65 [*4*] 108 [*f*] 76a, 106, 188	74
chitoniskos	= *(Diminutive of χιτων)* ***Short frock*** IG.2{2}.1514.28 ; X.*An.*5.4.13 ; Ar.*Av.*946 ; Ar.*Lys.*1010 ; Phld.*Ir.*p39W Pl.*HP.Mi.*368c ; D.21.216 D.19.197 ; IG.II^2.1514.12 ; Apollod.*Com.*12	chitoniskos	[*1*] 20a [*2*] 112, 136, 266, 266, 270, 308, 43, 52, 121, 116, 122, 145, 146, 269, 319, 321, 45, 51a, 119, 316, 320, 53, 117, 172, 120, 145, 279 [*3*] 30, 42, 171, 275, 323, 12, 14, 126, 127, 244, 276, 21, 54, 158, 107 [*5*] 28, 160 [*f*] 258, 291, 292, 79	75

chlanis	= ***Upper-garment of wool, finer than a χλαινα, worn by women as well as men;*** a) ***Used by old people*** b) ***Of fine wool*** c) ***As a mark of effeminacy*** d) ***Worn on special occasions, i.e. wedding mantle*** e) ***Used as a blanket*** Simon.37.12 ; Hdt.3.139, 140 ; Phld.*Vit.*p21J **a)** Ar.*Ec.*848 ; Antiph.33.3 **b)** Plu.*Alc.*23 **c)** D.36.45 cf. 12.133 **d)** Eub.108 cf. *Com.Adesp.*338 ; Ephipp.19 cf. Anaxil.18.2 ; Teles.p.40H cf. p.53H **e)** Ar.*Av.*1693 ; Ar.*Fr.*491 ;*AP5.*172 (Mel.) Plu.2.989f **2.** Jul.ad.Ath.274c, 278d	*chlanis* *a fine cloak*	[*2*] 139* [*3*] 39 [*6*] 40* *Diminutive form, see p. for discussion	76
chlanida	= *(Diminutive of χλανις)* ***A woman's mantle*** Hdt.1.195; Chaerem.14.9;*Trag.Adesp.*7 ; E.*Supp.*110 ; Ar.*Lys.*1190; E.*Or.*42 Michel.832.30 (Samos ivBC); *GDI.*5633.13 Schwyzer.462B33 (Tanagra iiiBC)	*chlanida,* *a woman's* *fine cloak*	[*1*] 259 [*2*] 118	77
pharinon	= ***A large piece of cloth, web.*** II. = ***Commonly, a wide cloak or mantle without sleeves; also worn by women, drawn over the head; used as a shroud or pall.*** Od.5.258 cf. E.*Hec.*1082 **II.** Il.2.43 ; 8.221 cf. 15.63 ; Xenoph.3.3 ; Pherecyd.*Syr.*2 ; Hdt.9.109 ; E.*El.*1221 **(women)** Od.5.230 ; Hes.*Op.*198 ; A.*Ch.*11 ; Od.8.84 ; E.*Supp.*286 ; Ar.*Th.*890 **(shroud)** Il.18.353 ; 24.580 ; S.*Aj.*916 ; Pl.*Eleg.*12 ; Od.2.97 ; 24.132 ; Str.916 **(bedspread)** S.*Fr.*291 ; Hes.*Op.*198 ; A.*R.*3.863	*pharos,* *a wide cloak*	[*1*] 347	78

2. Colour adjectives and substantives:

Looking at the terms for colour, a further distinction can be drawn between those that appear as adjectives and as substantives. Substantive colour-terms for garments include κροκωτὸς, ἀλουργὶς, and βατραχὶς (the last two morphologically distinct from their adjectival equivalents, the first not). In considering the possible import of this grammatical difference, we must consider the place of the terms in the overall description of the garment. This is relatively simple for the latter two but more interesting for the first.

For the above-mentioned garments, the latter two are usually described by the colour-term alone, the first once qualified by the description ξενίκη (foreign). The use of specific forms of colour-term as substantives to carry the primary description of garments, particularly in conjunction with descriptions of other garments which use the adjectival form, emphasises the importance of these colours for clothing,[1] This is particularly noticeable for the term κροκωτὸς. Of the twelve garments described by different forms of the term κροκωτὸς four are referred to using this term alone. A further five are described using this term along with one of two terms relating to decorative form. [83, 85,122 (διπλοῦν, double) 111, 114 (ἰσοπτυχες, with equal folds)]. One more garment is described as also being ποικίλον, and as having ribbons and *pasmatia*. Only two of the descriptions of these twelve garments include a description of the type of garment [272, 81]. The κροκωτος is distinctive in this respect, possibly because the colour was definitively linked to a particular garment type, or because the significance of the colour subsumed that of the type, but at any rate, the frequent use of this colour term as both a substantive and *single* descriptive term emphasises the conceptual importance of the colour for clothing.[2]

3. Analysis Related to Specific Garments:

The analysis in the chapter itself has concentrated on the nature and pattern of the descriptions of garments by this catalogue. In doing so, the emphasis has been placed on the idea of opposition – that what is not said can be as significant as (and provides essential context for) what is said. It was argued that in a catalogue of this type, terms are more appropriately considered as groups (as examples of variation) which reciprocally illuminate each other, than simply as singular examples of Greek words. I have argued from the outset that this catalogue should not merely be regarded as a transparent record of the original garments. Its opacity has therefore been examined from a variety of perspectives.

However, this Appendix to the Chapter takes the position that, having deliniated many of the factors which render this catalogue opaque – having seen the descriptions as examples of a particular form of semiotic structure, and the meanings of the individual terms as members of descriptive sets – it is, at this late stage, possible to approach it from the object perspective of the garments concerned (as long as the foregoing caveats are borne in mind). Indeed, garment type has consistently presented itself as the pre-eminent aspect of the description of garments. It was not given conceptual primacy in the analysis, in order to emphasise that it proves not to be essential to the description of each garment.

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[1] See p.159, n.11

[2] See p.157, 159-61, 167, 169ff

However, a sufficiently large proportion of the garment descriptions detail type, so that some conclusions may be drawn about the relationship between the type of garment and other described features, particularly colour and decoration. When the descriptions of this catalogue are considered from this perspective, some surprising co-relations emerge. Again, I have preferred to consider wide groups to minimise unwarranted assumptions, and accordingly, this section considers types of garment in terms of whether they are outer garments, inner garments, or miscellaneous garments.[3]

3.1 Colour in Different Garment Types: Outer Garments

The non-fragmentary descriptions detail a total of thirty-six outer garments.[4] Sixteen of these are *himatia*, and the colour or decoration of fourteen is described. Seven are described as white (two of these also having purple borders, one with 'sacred writing,' and one specifically described as a woman's garment). Four of the other seven, base colour unspecified, have purple borders (one being a child's garment, one a woman's). A further two have purple 'in the middle.' The other *himation* is described as having 'gold lettering.'

The next most common outer garments, five of each appearing, are of the *ampechonon* and *chlanis* types.[5] Only one *ampechonon* has described decoration ('sacred writing'). Two of the five *chlanis* type have decoration; one a border, one (a child's) a crimson border and 'sacred writing.' All of the four garments of the *enkuklon* type are coloured or decorated; two being white and two patterned. And all of the three *epiblema* type garments have decoration; one with 'animal designs,' and two patterned, one of which is the only new garment in the catalogue. The remaining three outer garments, a *pharos* and two *tribonia*, have no described colour or decoration.

It can be seen then that the only marked base colour for outer garments is white, and that the only form of decoration described for *himatia* is the purple border (lettering decoration should, I believe, be linked to the garment as a dedicated object).[6] The fact that a few examples of the *ampechonon* and *chlanis* type garments have described decoration would seem to indicate that the other examples of this type did not, rather than that the presence of decoration was assumed. In comparison, it is noticeable that **all** the examples of the other main types of outer garment have their colour and/or decoration described. The distinguishing features of the *pharos* and *tribon* would, on the other hand, seem to be size and quality respectively.[7]

3.2 Colour in Different Garment Types: Inner Garments

In total, ninety-four inner garments are described by the catalogue, forty-five having marked colour and/or decoration. Well over half (fifty-two) of these are *chitoniskoi*, thirty-four of which have colour and/or decoration. Their base colours encompass the whole range used by the catalogue; five are white (three of which are also decorated); two are blue; three green (one also patterned); two saffron

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[3] This division is loosely based on that found in the clothing regulation from Andania, see p.239-44
[4] Twenty-four with described colour or decoration.
[5] The use of diminutives for the *chlanis* type garments is detailed in the Glossary, No.76
[6] cf. p.191-93 (re. Woman Painter)
[7] See Glossary, No.78 & 70

(one a child's); two purple (both patterned); one yellow. Of those whose base colour is not described, ten have purple borders, six borders of unspecified colour, and three are patterned.[8]

The next most numerous inner garment is the *chitionion*, of which there are fifteen, five having colour and/or decoration; one yellow with purple border; one saffron; one white; one patterned; and one embroidered. Of the fourteen *chitones*, only two have decoration (one a battlement pattern border, one purple 'in the middle'). Half of the six *truphema* type garments have colour or decoration; one is saffron, one patterned, and one embroidered and with a border. One of the three *ledion* type garments has a border, but none of the four *tarantinon* type have described colour or decoration.

It is clear therefore that the range of colours used for inner garments was much wider than that for outer garments. The *chitoniskos* is remarkable, not only for being the most numerous garment in the catalogue, but also for the proportion for which a wide variety and combination of colour and decoration are described. This garment, which is frequently depicted (as coloured and decorated) on white-ground *lekythoi*, was worn over the long *chiton*, and seems to have been fitted rather than draped, both of which characteristics would make it the ideal site for colour and decoration.[9] As with the outer garments, when some examples of a type have decoration described, this would argue that it was not present on the others. In terms of base colour, and the opposition of marked to unmarked colour, it should be noted that white appears as a mark for the *chitioniskos* and *chitonion*, but not for the *chiton*. In fact, of all the garment types, the *chiton* has the lowest **proportion** of examples with described decoration or colour (none of the *chitones* are described in terms of base colour).[10]

There are twenty-eight descriptions of garments in the catalogue that cannot be fitted under the inner/outer distinction of Greek dress. Six of these (five saffron garments, one purple embroidered garment) are described wholly in terms of their colour.[11] Another six are of the *kandus* type; three patterned, one also green. One of the two *dipterugon* type garments is embroidered. The one 'foreign' garment is purple, while the *lasion* is a single term description. The other miscellaneous garments are belts and headgear. Of the three girdles, one is white, one has a wide purple border. Three of the four *kekruphalloi* have colour or decoration (one patterned, two white) but none of the five *kalummai* do. Since with all these garments, we are dealing with types whose form and nature is even more difficult to envision, it is less possible to draw any inferences about the relationship between type and decoration, except to note where it exists.[12]

3.3 Colour in Garment Types: Conclusion

The preceding section, and the chapter as a whole, has some significant implications for any picture of the use of colour in clothing, as well as for its potential 'meanings.' However, the Brauron catalogue is unique, not only epigraphically, but also in that it refers to a particular collection of

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[8] Twenty-five with decoration, nine coloured only, nineteen decorated only.

[9] See p.202 for eg. also line 53, *chitoniskos,* half-woven, with wool, and cf. below, Ch.6, on dyeing of linen vs. wool.

[10] Two of fifteen.

[11] See p.130-32, also Glossary, No.4 & 4a. I have not included here the eleven garments that are described mainly in terms of their decoration, without specification of type. See Tables, p.108, 112, 115, 117

dedicated garments. It would be foolish to regard it as representative of 'Greek dress.' Nevertheless, it yields some specific, fascinating and valuable evidence. What is required is that this evidence be considered in a wider context, such as the social significance of coloured clothing as revealed by drama in the next chapter. The practical aspects of the use of colour for clothing, and evidence for its visual representation, will be discussed by Chapters Five and Six. In these chapters, evidence from these inscriptions about combinations of colour and decoration, garment type and fabric, and terms for colours and dyes, will be related to evidence about the practical processes of garment manufacture and dyeing, and to the representations of Athenian dress in use found on white-ground lekythoi. This section will therefore be referred back to frequently.

[12] None of the four men's garments (see G.4, p.137) are described in terms of colour or decoration. See Llewellyn-Jones (2000) for discussion of veil types.

Chapter Four: Coloured Clothing in Attic Drama

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1. Preface

The evidence considered by this chapter is very different to that of the previous chapter, not only in its context, but in its purpose. On the one hand, its context is more full: on the level of language, the individual references to colour in clothing are located in passages which are themselves meaningful. On the other hand, their purpose is essentially different: these references use language to create the colour of clothing in the minds of the audience. This is so even when the clothing itself is present on-stage, for then, the textual reference creates its significance at that particular point in the play. In this evidence, it is the place of colour in clothing which is implicit, and its significance which is explicit and functional.

Therefore, the dramatic evidence is presented as a comparandum, both for the use of language to refer to clothing, and for the social and ritual significance of colour in clothing – a major feature of the two bodies of inscriptional evidence considered by this thesis. As such, although the references to the works of Aristophanes, Aeschylus, Sophocles, and Euripides are complete (in that they include every textual reference to the colour of clothing) this chapter does not aim at a complete or rounded discussion of the subject, a task which would surely require a thesis to itself if justice were to be done. To fully understand the use and significance of coloured clothing within these plays would require extensive consideration of the dramatic context of each appearance, the overall themes and aims of the dramas, and quite probably a more comprehensive and subtle understanding of the social significance of Greek dress than has yet been achieved. My reasons for not approaching colour in Greek clothing primarily from the perspective of literary references have been given in the introductory chapter, and apply equally here. In short, this chapter is a collation of evidence, and of observations which will be compared to the conclusions drawn from other chapters.

1.1 Introduction

Drama provides important evidence about colour in clothing. The main part of this chapter is divided into two sections, the first concentrating exclusively on Aristophanes, since his plays make particular use of clothing, and of the dramatic possibilities inherent in the levels of costume used in Greek comedy. The second is a survey of the tragic references to colour in clothing, which, although they do not appear to enjoy the same complex relationship with everyday reality exploited by Aristophanes, provide clearer examples of the ritual and social significance of colour in clothing. The difference of emphasis in this respect is not altogether surprising: comedy exaggerates reality, tragedy abstracts humanity. Both these approaches require costume, to contextualize and manipulate the characters and audience, just as in life we use clothing to define our social contexts and manipulate the way we are perceived.

Of course, this introduces the question of the relationship between costume and clothing, and the fact that this must be seen somewhat differently for Greek than modern drama. The relationships between mask, wig, padding and costume are discussed in detail below for the plays of Aristophanes, but some general points should also be made here. Greek dramatic costume has in many ways been more widely and successfully studied than Greek clothing, and a large part of such studies has been the consideration of the

depictions of tragic costume on vases.[1] It seems clear that the costumes tragic actors wore on stage were quite radically different from everyday dress (at least as the two are represented on vases): the distinguishing features seem to have been ornate decoration and long fitted sleeves, in addition, of course, to the tragic masks.[2] This costume emphasises the distance of the tragic context from 'reality' - these characters inhabit an heroic world, of kings, heroes, and gods – but it does not obviate the relationship between the significance of coloured clothing within the plays and without. If anything, it suggests that the symbolic significance of dress is heightened, that the clothes, like the characters, are paradigmatic, universal, rather than parochial and personal.

Nevertheless, the amount of information about clothing provided by drama is necessarily limited, since the plays were composed to be staged, and therefore many, if not most, of the points which were made through dress, including colour, would have been conveyed visually. In this context, it is not surprising that the number of instances in which the dress of the characters is reiterated in the text is small. However, this in turn suggests that in those instances where clothing is emphasised in the text, it was of great importance to the significance of the scene. Similarly, although references to off-stage clothing might seem to be less relaible, it should also be taken into account that the garments and their significance must have been sufficiently familiar to the audience that they could easily be called to mind, in order to illuminate the reference and complete the mental picture.

2. Case Study: Coloured Clothing in Aristophanes

The plays of Aristophanes are a perplexing source of information about clothing. On the one hand, as their aim is to identify the humour in the Athenian condition, they provide precious information about the social meanings of dress in late fifth century Athens. Clothing is the agent through which poor are transformed into rich, men into women and women into men. Such transformations, effected on the stage, surely have potential to shed light on the usages they manipulate for comic effect. On the other, clothing only ever makes a cameo appearance in the text. Its main role was necessarily on the stage, visual, and therefore lost to us apart from the occasional, oblique, glimpse.

It is not my intention to discuss the role of clothing in Aristophanic comedy, or its importance for understanding the general social significance of dress. The more limited concern of this study is with colour in clothing, for which Aristophanes makes an interesting source, not only because of his regular use of dress in humour, but also because these plays are so intimately linked to their Athenian setting. To an extent, of course, this may be said of all Attic drama, tragic and comic. Yet while tragedy frequently takes advantage of the distance provided by remote locations and heroic milieux to make subtle points about Athenian life, the comedy of Aristophanes relies upon the fact that, however fantastic their setting, his characters remain, inescapably, Athenian. The disguise and suspension of disbelief at the heart of Greek drama are

[1] Beare (1954, 1957, 1959) Bieber (1961, a & b) Brooke (1962) Killeen (1979) Miller (1999) Pickard-Cambridge (1968) Said (1987) Smith (2002) Sommerstein (1993) Stone (1980) Trendall (1967) Webster (1953, 1955, 1957, 1972, 1978) Zeitlin (1965)

manipulated, exploited and subverted on a bewildering multiplicity of levels, yet rather than obscuring the relationship between characters and audience, this frequently renders it more immediate.

Costume and Clothing

This multiplicity of levels is integral to an understanding of the use of dress in these plays. Costume and clothing cannot be unrelated – it is attempting to define the relationship that poses the problem. For Aristophanes in particular, however, there are grounds for thinking that this relationship may be both closer and more amenable to investigation than is the case for other drama. Still, it would be foolish to hope, and it will not be assumed, that this could be defined to the extent that the comic origins of any evidence or conclusions could be safely dismissed. Just as it is accepted that in this comedy, there is often no simple, easily defined, relationship between actor and character, so dramatic costume as used in the plays operates on a variety of levels.

Throughout her examination of costume in Aristophanes, Stone appears to distinguish between three interconnected layers of the concept, a distinction I subscribe to. There is the mask, which carries the identity of the character, and the wig, which complements it by revealing age and social class. There is the padding, which transforms the body of the actor, denotes the comic context, allows gender identification, and provides numerous opportunities for visual jokes. What we would now call the costume – the dress of the actors – complements these distinctive aspects of ancient comic costume.

I would argue that the padding, including the phallus where appropriate, transforms the body of the actor into the body of a comic character, while the mask makes him into a specific character with personal characteristics and identity.[3] Therefore, in contrast to modern drama, where the costume is often the sole major supplement to the words and manner of the actor in constructing him or her as a distinct character, the Greek comic actor is entirely concealed by the character. This concealment is complete, both physically and conceptually, before the clothing part of the costume is put on, and is so to the extent that the clothing can be removed on-stage without revealing the actor.[4]

The role of clothing as costume in the Aristophanic context is perhaps best revealed by costume changes, which "clearly do much to enhance the plays. When a character is somehow transformed – with regard to his lifestyle, his age, or his entire being – costume communicates the change in a clear, obvious manner. As a visual symbol of the character's identity, the mask provides an indicator of the depth of the change; only a total transformation involves a change of mask. Costume changes are used also to mark changes of status in a character."[5]

This suggests that Aristophanic costume should be regarded neither simply as ordinary clothing (as opposed to the padding, wig, and mask) nor formalized costume. Indeed, one can argue that comic costume, in Aristophanes, enjoyed the same relationship with the comic 'body' that ordinary clothing did to the 'real'

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[2] Sleeves substitute for padding in the subsumption of actor into character, and disguise male arms?
[3] Foley, (2000: 275-311, esp. 295)
[4] See Stone (1980:147-50) on the possibility of naked personifications.

person. This is not to say that Aristophanic costumes looked like 'real' everyday Athenian dress. But this similarity of relationship would imply that **what** the clothing elements of the costume revealed about the character, **how** they were manipulated, and how other characters **reacted** to them, were equivalent to the real social and personal statements communicated by clothing outside of the theatre.

Therefore, although Aristophanes is not the best source for the form of Greek clothing, a case can be made for his plays as an extremely valuable exploration of the possibilities of Greek clothing as social statement and signifier. That good use was made of these possibilites is indicated by the claim that "In Aristophanic comedy, the chief value of the outer garment lies *in its ability to communicate effectively the financial and social circumstances of the individual who wears it.*"[6]

2.1 References

κροκωτος

A.1. *Nub.* 51 Strepsiades' 'upper-class' wife is described as 'smelling of κροκου.' This could refer to her use of saffron perfume, but equally to her clothing, which would retain the pleasant smell of the saffron dye.[7]

A.2. *Lys.* 44-51 Lysistrata and Cleonice discuss women's cosmetic arsenal for the 'sex war' – the κροκωτος is an integral part. Interestingly, once Cleonice is convinced, she rushes off to "κροκωτον...βαψομαι." Although many scholars have preferred to emend this verb "many wonder why one would speak of dyeing a garment which was already dyed," there is really no need. Saffron is a direct but fugitive dye.[8]

A.3. *Eccl.* 879 One of the old hags wears a κροκωτος in an attempt to appear seductive.

A.4. *Eccl.* 332 Blepyrus wears his wife's κροκωτιδιον because she has taken his *himation* in order to attend the Assembly.

A.5.*Thesm.*137-8 Mnesilochus comments on Agathon's combination of beard and κροκωτος.

A.6.*Thesm.* 253 Euripides makes Mnesilochus put on Agathon's κροκωτος.

A.7.*Thesm.* 941/5 Mnesilochus complains about being publicly displayed in the κροκωτος.

A.8.*Thesm.* 1043 Mnesilochus describes how he has been made to wear the κροκωτος.

A.9.*Thesm.* 1220 Scythian describes Mnesilochus to his pursuers as wearing the κροκωτος.

A.10. *Ra.* 45-6 Dionysos wears the κροκωτος under his Heraclean lionskin.

A.11. *Lys.* 645 Choruswomen recall wearing the κροκωτος as *arktoi* at Brauron.

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[5] Stone (1980:429)
[6] Stone (1980:170)
[7] See p.227 etc. for discussions of dyeing.
[8] Stone (1980:175) Rogers (1902-30 comm.ad loc.) summarises the debate and supports emendation. I note the use of the middle form, denoting actions 'for oneself.' See p.213ff, 2227ff as above.

βατραχις

A.12. *Eq.* 523 Description of the Chorus of Magnes' 'Frogs.'

A.13. *Eq.* 1406 Demos accepts the garment to attend a *prytaneian* dinner.

ἀλουργις

A.14. *Eq.* 967 Sausage-Seller offers this garment to Demos, along with a crown.

ξυστις

A.15. *Nub.* 70 Strepsiades complains that his wife has extravagantly promised this garment to their son.

A.16. *Lys.* 1190 Chorus invite the audience to partake of the rewards of peace, rich garments among other things.

φοινικις

A.17. *Ach.* 320 Metaphorical, contrasting wearing these cloaks with peace.

A.18. *Pax.* 303 Chorus describe themselves as free from κακων φοινικιδων

A.19. *Pax.* 1174 Description of a hypothetical *taxiarch.*

A.20. *Lys.* 1140 Lysistrata reminds the Spartans of Phereclides' time in Athens as a suppliant.

A.21. *Plut.* 730 This instance, describing the healing of Plutus, probably refers simply to a red cloth.[9]

Colours of Miscellaneous Garments

A.22. *Ach.* 1024 Dicaeopolis meets a Farmer who has lost his animals.

A.23. *Av.* 1116 Chorus "threaten to soil the audience when dressed up in the χλανιδα λευκην."[10]

A.24. *Plut.* 530 Dyeing of *himatia* under threat due to poverty.

A.25. *Ach.* 845 Utopian future includes 'shining χλαιναν.'

[9] See p.229 for references to madder and kermes used as medicine.
[10] Stone (1980:164)

2.2 The Coloured Clothing

The appearances of coloured clothing in these plays fall into three categories: garments whose colour is integral to their nature: garments which are qualified by their colour: and garments whose colour is not mentioned in the text, but whose colour may be inferred from paint traces on statuettes of comic actors. The first of these is the easiest to define: there are five such garments in the plays – κροκωτὸς, ἀλουργις, φοινικις, ξυστις – and other examples are found elsewhere.[11] The first four are substantives formed from adjectives or nouns referring to colour, describing the garment purely in terms of its colour, implying that this was the most significant feature both in identifying the garment and carrying its connotations.[12] This can be contrasted with other words for coloured garments, which compound colour and garment terms.[13]

The type is exemplified by the κροκωτὸς, whose standard description is " ...a woman's *chiton* which has been dyed to a saffron colour."[14] In Aristophanes, this garment has a number of connotations, the most ubiquitous being that it is a female garment – worn by female characters, male characters wearing women's clothing, and Dionysos.[15] More specifically, the κροκωτὸς is festive, but it is also sexy. A.2 and 3 make the latter clear, as do the humour and diminutive in No.4. The *'Lysistrata'* provides a parallel example of sexy female attire, substituting διαφανῆ for κροκωτὸς, and the similarities between the two passages suggest that the appeal of this garment was similar to that of sheer clothing, more natural to modern thinking.[16]

For the ritual or festive associations, A.10 and 11 (and possibly 6, 7 and 8, given their setting in the Thesmophoria) are particularly interesting. A.11 makes a well-known connection with the *arktoi* at Brauron, supported by the dedication of κροκωτοι there.[17] A.10 associates the garment with Dionysos, possibly because of its connotations of effeminacy.[18] On the whole, commentators have accorded greater significance to its festive aspect. Stone points out that "The colour adds gaiety . . . making it suitable for ceremonies and holidays" and suggests that it may have been worn on-stage by female characters attending

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[11] e.g ὀμφακινον – Poll.7.56, ποικιλον, πορφυρις – Plu.*Aem.*23, Arist.*EN.*1123a23, φλογινα – Phylarch.41J, Ael.*VH.*9.3. See Glossary, p.134-47

[12] See Glossary p.134-47, 148

[13] e.g κροκωπεπλος, Il.8.1, 19.1, etc. Hes. *Th.* 273, 358, Alcm.85A

[14] Stone (1980:174) See A.1-11 There is some disagreement as to its form. Although Pollux (4.117) refers to it as a *himation*, the contexts here suggest a *chiton*, and most scholars support this interpretation. Blaydes (1880-93: comm.ad *Lys.*645) Amelung, χιτων, 2324, Daremberg & Saglio (1962, 1875-1919:157b) Stone (1980:174). Suda, s.v. uses both terms.

[15] See summary above, p.157-58, which has been arranged thematically to show the relationship between various aspects of the garment's 'meaning.' See also below, Section 4, T.44-48

[16] Ar. *Lys.* 121f. It is possible that the κροκωτος was itself often sheer.

[17] See p.138-39 for index of line numbers, and for references.

[18] See p.160

festivals, even when it is not mentioned in the text.[19] Certainly a case can be made for its general use in the staged Thesmophoria, assuming that Mnesilochus is not intended to stand out, although this would make its use in the context of sexual attraction somewhat paradoxical.[20]

The transvestism aspect can be more illuminating.[21] This context appears mainly in the '*Themophoriazusae*,' first for Agathon, when the contrast between his beard and dress is pointed out. Once Euripides has dressed Mnesilochus, it is referred to a further four times. Fully half of the references to the κροκωτὸς occur in this play. It seems clear that Agathon, Mnesilochus, and even Blepyrus wear the κροκωτὸς because it is a conspicuously feminine garment. It is to emphasise this that it is referred to verbally as well as displayed visually.[22]

It seems more in keeping with the spirit of the 'disguise' in this play (whose humour surely hinges on the interplay between male actors playing female characters 'discovering' a male actor playing a male character dressed up as a woman) that Mnesilochus' disguise is ridiculously conspicuous amongst the women. It would be easy, not to say **commonplace**, for Mnesilochus to look like a genuine female character, modestly wrapped in a *himation*. Of course the male mask would be comically incongruous, but how much more so above a sexy little number? Euripides' idea of women's attire at their secret festival would then be in keeping with his ideas of their behaviour. It is also worth considering that gaudy, outrageously sexual clothing is still used to render the female impersonator non-threatening, while retaining the frisson of transgression.

On balance then, my assessment of the use of the κροκωτὸς in Aristophanes is that its ritual use was probably restricted, being associated mainly with Brauron, possibly precisely because of its connotations of womanhood and sexuality.[23] There seems no doubt from these references that it "...was considered somewhat special, a woman's most attractive and costly garment," and that its primary social statement was femininity.[24] However, the overtly sexual contexts in which it appears in these plays argue for an important secondary association with sexual allure.[25] It may be suggested that this was due to the fact that saffron tends to be highly prized for its beautifully vivid colour and pleasant smell and taste.[26] As a colourant, it combined three qualities which seem to have been of particular importance to the Greeks –

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[19] Stone (1980:175) Van Leeuwen, comm. ad *Thesm.* 253 "κροκωτος was the normal dress of women at the Thesmophoria." cf. Dover, comm. ad *Nub.*51

[20] See p.272-76

[21] Saïd, (1987: 217-48, esp. 247)

[22] Male characters also could appear on stage in long *chitones*, Stone (1980:429). In the case of Agathon, Blepyrus and Dionysos, the humour is due to the combination of specifically masculine attributes with a feminine garment.

[23] See n.17

[24] See p.167, 169ff

[25] For Dionysos, Cratinus 38. Dedication, see p.138-39. Note that these are **not** necessarily children's garments. Used by effeminate men: Arar.4, Callix.2, Duris 12J.

[26] Wagner-Hasel (2002:17-33)

producing a bright, lustrous colour, a sweet smell, and being extremely expensive.[27] This last point recalls two of the most famous adornment scenes – of Pandora and Hera – the great attention devoted to the adornment of the bride, and the association of purple with brides and Aphrodite, a complex which suggests that luxurious clothing possessed an erotic allure, either in itself, or because of its association with the bride.[28]

In contrast to the frequent references to the κροκωτὸς, the other garments of this type make relatively minor appearances in the plays, making it impossible to attempt as full an understanding of their use, or to form a detailed picture of their significance. The βατραχις appears only twice – once describing the Chorus of Magnes' 'Frogs,' and once as the robe presented to Demos to wear at the public feast. These lead Stone to define it as "a men's *chiton* which has been dyed to a pale green colour. It was apparently the robe required for Prytaneian dinners."[29] The association with frogs – the literal meaning is 'frog-coloured' – is clear at least, and again it seems likely that the colour was bright and distinctive.[30]

Earlier in the same play, Demos is offered another garment, an 'embroidered ἀλουργις' – according to Stone "a *chiton* which has been dyed purple."[31] The context of the passage, and the accompanying offer of a στεφανη, mean that "we can infer, with Neil (comm.ad loc) that the ἀλουργις is an elaborate ceremonial robe."[32] The other (apparently purple) garment which occurs in the plays, though it is never said to be worn by a character, is the ξυστις "a full-length soft robe of ornately decorated purple fabric, worn by both sexes."[33] Again, it is not clear whether the term denoted a *chiton* or *himation*, since the "defining features are material and decoration."[34] From the contexts in the plays we can infer that this was a particularly expensive and luxurious garment, which was apparently worn frequently in tragedy.[35]

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[27] Fabrics and scent are frequently linked in Homer – 'heavenly scent' e.g. Il.3.385-8, 18.25. Perhaps particularly important since many dyestuffs and textile finishes would produce a lingering, unpleasant odour. (See Ch.6) As to expense, saffron remains among the most valuable substances, weight for weight due to the nature of its production. See p.127 & p.227f, for the question of whether the connotations were linked to hue, or specific dye shades.

[28] Hes.*Op.*60-82; Il.14.159-223 Sinos & Oakley (1993:16-19) Wagner-Hasel (2002:20, 21, 28)

[29] (1980:176) Again, Stone suggests that the garment may have appeared more frequently on-stage as the dress of characters attending official banquets or festivals (1980:176) Amelung, χιτων 2325, Rogers, comm. ad *Eq.* 1406. However, a single reference is hardly sufficient to make a definite association. See p.138-39 for dedications, and p.218-23 for discussion of dyeing to such colours.

[30] But what colour were frogs? See p.58 for discussion of use of this term as opposed to other 'green' terms.

[31] (1980:177) See p.103-6, 127f

[32] (1980:177) Amelung, χιτων, 2325; Blaydes, Van Leeuwen, comm. ad. *Eq.* 967. Other theories discussed by Daremberg & Saglio (s.v. Pallium, 4, 290A). See Glossary, p.138-39 for meanings and references.

[33] Stone (1980:182)

[34] Stone (1980:196) According to Starkie, comm. ad *Nub.* 70. Description based on Daremberg & Saglio (s.v. Histrio 3, 218b) Schol. ad *Nub.* 70, Blaydes, comm. ad *Lys.* 1190. See also Dearden (1976:115) See Glossary, p.137-9 for discussion of this and related terms. One may also question the difference between this garment and that of n.31.

[35] Schol. ad *Nub.* 70 – It is on this basis that Stone suggests it may have been worn by Aeschylus in the 'Frogs,' and "functioned as a robe of state for great men." (1980:182) Other uses, see Glossary, p.137ff

The last of the garments defined by colour is the φοινικις – "a red garment, especially the Spartan military cloak."[36] In this case, we are more sure of the form, and the garment's connotations are consistently military.[37] Stone suggests that, although again it is never referred to as being worn by a character, it may have appeared on the Spartan soldiers in the '*Lysistrata.*' Its use in the plays suggests that it was "also a common element of Athenian military wear."[38]

This type of coloured garment is the most numerous mentioned in the text. The second type outlined above – garments which can be any colour, but whose colour is specifically mentioned – is very small. White garments are mentioned twice: A.23 (Chorus threaten to dirty audience's white garments) and A.22 (an apparently sarcastic reference to the Farmer's rural lifestyle).[39] The two further references to coloured clothing are A.24 & 25. In the first "poverty threatens to put an end to lavish habits such as dyeing *himations.*"[40] Together with the evidence from terracottas, considered below, this confirms that *himatia* were often dyed, though it would not seem from this to be strictly necessary.[41] In the second, 'shining cloaks' are part of the utopian future. Precisely what this denotes is unclear, but it seems to have been an important quality, emphasised frequently in Homer and elsewhere, often, but not always, of textiles.[42]

Before moving on to the final category, it seems worthwhile to consider the role of colour in characterisation, where clothing seems to have played an important part. In general, however, specific colours do not seem from the text to be intimately connected to wider characterisation in Aristophanes, denoting context instead, as has been discussed above. Stone suggests that standard male clothing was "a *himation* of dull colour, not decorated, and wrapped casually about the shoulders: and abbreviated short *chiton.*" (1980:286) "Age distinctions can be made by the wig and mask, while social class and milieu are often communicated by the material and quality of the garments: accessories are used primarily to show the occupations and activities of the characters."[43] Such generalisations seem to hold equally true for female characters, although feminine dress is assumed to be less varied, with less emphasis on differentiating role and social status.[44]

While this may seem to de-emphasise the role of colour in characterisation, and therefore in the everyday social distinctions on which this must be based, it is worth emphasising that colour and quality in fabric would have been linked to an extent unimaginable today.[45] In the Middle Ages, many terms which

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[36] Stone (1980:183) Schol. ad *Ach.* 320 and *Pax.* 1173.
[37] See n.36 & Schol. ad *Ra.* "φοινικις χλαμυς πολεμικη." X. *Lac.* 11.3, *Cyr.* 6.4.1, 8.3.3, Plu. *Aem.* 18
[38] Stone (1980:181) See A.22-25 above.
[39] Stone (1980:164) Rogers, Van Leeuwen, Starkie, Parker, all comm. ad loc. "It has been suggested that the non-whiteness refers to the homespun or skin quality of the Farmer's clothing, but I prefer the interpretation that his clothes are dung-splattered" Stone (1980:276)
[40] Stone (1980:159) See also p.148-51 and p.195-6, 199, 208-13
[41] See p.148-51 & p.225ff, especially 227-8
[42] See below, λαμπρον, and p.212
[43] (1980:289) Suggested colour-related exceptions – ornate full-length *chitones* for musicians; embroidered *himation* for the bridegroom; dark *himatia* for mourners (1980:280-2) See p.228
[44] Stone (1980:297, 302) cf. p.97-100, 130-41, 148-51 and n.51 below, also p.197-201
[45] See p.228 and p.266-70

have now come to refer to colour were equally denotative of the quality of the dyed cloth.[46] It is this distinction between visual and textual references which makes it futile to expect to understand coloured clothing in Aristophanes in isolation. Stone's conclusions about characterisation certainly do not preclude the importance of colour.

Leaving the text aside then, there are a number of other inferences about colour which can be drawn from evidence associated with comedy. On the one hand, it can be inferred that some of the garments which are mentioned in the text without reference to their colour in fact had distinctive coloured features.[47] On the other hand, we can consider the evidence from terracotta statuettes of actors, many of which retain paint-traces revealing the original colours of their garments.[48] These suggest the possible colours used for basic male and female garments on-stage. For men's *himatia*: blue (most common) blue-violet, red, white, violet, pink, green and blue-green.[49] For men's *chitones*; blue, red, white, yellow, pink, flesh-coloured and brown.[50] For women's *himatia*: blue, white, red, brown, pink, yellow and green; and women's *chitones*: blue, pink, red, white and yellow.[51]

It would be facile to take these colours at face value, since their evidence is clearly qualified by two important considerations. They were painted, and the colours which were cheap, available, and considered pleasing in paint do not necessarily bear any relationship to those which met the same criteria for clothing. Moreover, the sample on which paint traces remain must be doubly random, and cannot therefore be used to inform us about which colours were originally prevalent.[52] The second qualification is that these statuettes represent costume, and therefore their relevance to the colours of ordinary clothing is open to question.

Nevertheless, though these statuettes may provide only dubious evidence for the use of specific colours for clothing, or costume, they do provide a good indication that the use of a wide range of colours for everyday garment forms was unremarkable. Even were we to restrict their relevance to the comic stage, they must have some bearing on our view of the textual references to colour in the plays. Seen against the background of these statuettes, garments like the κροκωτὸς and ξυστις cannot be seen as having been

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[46] Gage (1993:27)

[47] Stone (1980:164) uses the example of the ἐγκυκλον "None of our sources really suggests what features distinguished [it] from masculine forms of the *himation*. Possibly the fabric itself was more ornately decorated or colourful." See Glossary, p.143 for literal meaning of term, but this guess is confirmed by the descriptions of dedicated garments, p.148-51

[48] Webster (1978)

[49] Stone (1980:156, n.12) "Based on pigment traces recorded by Higgins, Korte, Bieber and others: MMC 3 repeats most of this information." Blue – AT14a, AT14d, AT46a, AT84 (r) XT16 & AT128b. Blue-Violet – BT1. Red – ZT4a. White – XT11, IT5. Violet – AT46h. Pink – AT46i. Green – BT10, Blue-Green – BT7.

[50] Stone (1980:172, n.58) Blue – AT41, AT46a, AT123a, ST83, ZT4a. Red – AT26c, AT84 (l). White – AT39, IT5. Yellow – BT6. Pink – AT24a, Flesh-coloured – BT14, Brown – AT26e

[51] Stone (1980:156, n.14, 172, n.64) Blue – AT16f, AT28b, AT74, AT83, AT115a, AT116d, CT12. White – AT23a & h, ST13a, ST49a. Red – AT69a. Red and White – AT70b, Brown – AT70a. Pink – AT16d Yellow – AT23b Green AT114. *Chitones*: Blue – AT10g, AT23a-c, AT70b, AT113i., AT115b,e, AT116d. Pink – AT23h, ST13a, CT12. Red – AT28b, AT115a. White – AT69a. Yellow – AT70a.

[52] See p.176, 179, 182ff

exotic simply because they **were** coloured, but must have been remarkable (in the literal sense) because of some aspect or significance **of** their colour.[53]

3. Index of References to Coloured Clothing and Textiles in Greek Tragedy:

μέλας

T.1 A. *Choeph.* 10-12 [Mourning] φάρεσιν μελαγχίμοις

Orestes notes Electra and mourning women approaching Agamemnon's grave, wearing black. [On]

T.2 E. *Phoen.* 371-2 [Mourning] πέπλους μελαγχίμους

Jocasta mourns with shaved head, wearing black. [On]

T.3 E. *IA.* 1437-8 [Mourning] μέλανας . . . πέπλους

Iphigenia tells her mother not to cut her hair or wear black in mourning. [Off]

T.4 E. *IA.* 1448 [Mourning] μέλανας . . . πέπλους

Iphigenia tells Clytemnestra not to let her sisters mourn. [Off]

T.5 E. *Hel.* 1186 [Mourning] πέπλους μέλανας

Helen is asked why she is wearing black mourning dress, not her white clothes. [On]

T.6 E. *Or.* 456-8 [Mourning] μελάμπεπλος

Chorus describe the approach of Tyndareus, in mourning for his daughter. [On]

T.7 E. *Alc.* 427 [Mourning] μελαμπέπλω στολῇ

Admetus commands mourning for Alcestis. [Off]

T.8 E. *Alc.* 817-8 [Mourning] μελαμπέπλος στολμούς

Servant describes the household situation to Heracles. [On]

T.9 E. *Alc.* 922-3 [Mourning] μέλανες στολμοι

Mourning Alcestis, Admetus contrasts mourning behaviour with wedding celebration. [Off]

T.10 A. *Sept.* 699-701 [Divine Attribute] μελάναιγις . . . Ερινός

Chorus describe an avenging spirit to Eteolcles. [Off]

T.11 A. *Sept.* 856-8 [Divine Attribute] μελάγκροκον

Chorus describe the dead's journey across Acheron in the black-sailed ship. [Off]

T.12 E. *Alc.* 843-4 [Divine Attribute] μελάμπεπλον . . . Θάνατον

Hercules describes his intent to save Alcestis from Death. [Off]

T.13 E. *Ion* 1150 [Divine Attribute] μελάμπεπλος . . . Νὺξ

Chorus describe the figured textiles making up Ion's ritual tent, including 'dark-robed Night.' [Off]

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[53] See p.2-4 etc. and p.58ff

λευκός

T.14 E. *Phoen.* 322 [Mourning, Contrast] φαρέων λευκῶν

Jocasta contrasts her white dress with her mourning clothes. [On]

T.15 E. *Hel. 1187 [Mourning, Contrast]* λευκῶν

Helen's current mourning dress is contrasted with her usual white. [On]

T.16 E. *Alc.* 922-3 [Mourning vs. Wedding] λευκῶν . . . πέπλων

See No.9 above. [Off]

T.17 A. *Eum.* 353 [Ritual] παλλεύκων δὲ πέπλω

Furies admit that they are not entitled to the pure, white dress, of ritual. [Off]

T.18 A. *Supp.* 191-2 [Ritual] λευκοστεφεῖς

Danaus describes his daughters' white-wreathed suppliants' branches. [On]

T.19 A. *Supp.* 334 [Ritual] λευκοστεφεῖς

As above. [On]

T.20 E. *Ba.* 112 [Ritual] λευκοτρίχων

Chorus describe the Maenads fawn skins, fringed with white wool. [Off]

ποικίλος

T.21 A. *Prom.* 23-5 [Divine Attribute] ποικιλείμων νὺξ

Hephaestus describes 'spangled-robed Night.' [Off]

T.22 E. *Andr.* 148 [Character Attribute] ποικίλων πέπλων

Hermione describes her rich patterned clothing. [On]

T.23 S. *Ter.* Fr. 586 [Character Attribute] ποικίλῳ φάρει

No context; a female character's patterned dress is described. [Off?]

T.24 A. *Choeph.* 1013 [Character Attribute] ποικίλματος.

Orestes describes Agamemnon's patterned garment, which bears witness to his murder. [On]

T.25 A. *Ag.* 923 [Status] ποικίλοις

Agamemnon refers to the patterned purple cloths that Clytemnestra has put down for him to walk on. [On]

T.26 A. *Ag.* 926 [Status] τῶν ποικίλων

As above. [On]

T.27 A. *Ag.* 936 [Status] ποικίλοις

As above. [On]

T.28 E. *Hec.* 470 [Divine Attribute] δαιδαλέαισι ποικίλλουσ'

Chorus describe Athene's patterned peplos. [Off]

Other Patterned

T.29 S. *Trach.* 94 [Divine Attribute] αἰόλα νὺξ

Chorus describe the Sun's search for Heracles, referring to 'spangled Night.' [Off]

T.30 S. *Trach.* 133-4 [Divine Attribute] αἰόλα νὺξ

Chorus refer to 'spangled Night.' [Off]

T.31 A. *Eum.* 635 [Character Attribute] δαιδάλῳ πέπλῳ.

Apollo describes the murder of Agamemnon, wrapped by Clytemnestra in a patterned robe (metaphorical aspect). [Off]

T.32 A. *Sal.* Fr. 157 [No Context] φᾶρος ἶσον οὐρανῷ.

A female character wishes for 'a robe like the heavens.' [Off?]

T.33 E. *Hec.* 470 [Divine Attribute] δαιδαλέαισι ποικίλλουσ'

Chorus describe the complex patterns on Athene's peplos. [Off]

T.34 E. *Ion* 1146 [Ritual Textile] ὑφανταὶ γράμμασιν

Chorus begin to describe the woven figured decoration on Ion's ritual tent. [Off]

T.35 E. *Hec.* 471 [Divine Attribute] ἀνθοκρόκοισι πήναις,

Chorus describe Athene's garment as 'worked with flowers.' [Off]

T.36 E. *IA.* 73 [Character Attribute] ἀνθηρὸς . . . εἱμάτων

Chorus describe Paris' arrival in Sparta, with his flowery clothing. [Off]

πορφυρεοῦς

T.37 E. *Or.* 1456-7 [Character Attribute] πορφυρέων πέπλων

Chorus are told how Clytemnestra's murders hid their swords under their purple cloaks. [Off]

T.38 A. *Pers.* 317 [Dyeing as Metaphor] πορφυρέᾳ βαφῇ

Messenger describes the blood-stained,.defeated Persians. [Off]

T.39 A. *Ag.* 910 [Status] πορφυρόστρωτος

Clytemnestra orders servants to bring purple cloths for Agamemnon to walk on. [Off]

T.40 A. *Ag.* 946 [Status] ἁλουργέσιν

Agamemnon removes his shoes, asking to be spared divine jealousy for walking on the purple cloths. [On]

T.41 A. *Ag.* 959 [Status] πορφύρας ἰσάγυρον

Clytemnestra comments on his decision, referring to purple dye, worth as much as silver. [Off]

T.42 E. *Hipp.* 126 [Washing Scene] πορφύρεα φάρεα

Chorus describe a girl washing purple cloths in a stream. [Off]

T.43 E. *Or.* 1436 φάρεα πορφύρεα

Chorus are told about purple-coloured Phrygian cloths being embroidered as a grave-gift for Clytemnestra. [Off]

κροκώς

T.44 E. *Phoen.* 1491 [Mourning] στολίδος κροκόεσσαν

Antigone describes her Bacchic dance for the dead, in saffron-coloured clothing. [Off]

T.45 A. *Ag.* 239 [Character Attribute] κρόκου βαφὰς

Chorus describe the sacrifice of Iphigenia at her supposed wedding, in saffron clothing. [Off]

T.46 A. *Pers.* 660 [Character Attribute] κροκόβαπτον

Chorus summon the spirit of Darius, in his royal dress and saffron-dyed sandals. [Off]

T.47 E. *Hec.* 467 [Divine Attribute] κροκέῳ πέπλῳ

Chorus describe Athene's saffron-coloured, decorated, garment. [Off]

T.48 A. *Ag.* 1121 [Dyeing as Metaphor] κροκοβαφὴς

Chorus react with fear to Cassandra's words; blood, or bile, running to their hearts. [Off]

φοινικος

T.49 E. *Hel.* 372-4 [Dyeing as Metaphor] φοινίαισι

Helen describes the blood-stained faces of the grieving. [Off]

T.50 E. *IT.* 258-9 [Dyeing as Metaphor] ἐξεφοινίχθη

Iphigenia says that the Goddess' altar has not been dyed with Greek blood recently. [Off]

T.51 A. *Eum.* 1028 [Ritual Dress] φοινικοβάπτοις ἐνδυτοῖς ἐσθήμασι

Athene describes the φοἰνικος ritual dress to be worn by the old women who will worship the Furies. [Off]

T.52 E. *Hel.* 181 [Washing Scene] φοίνικας . . . πέπλους

Chorus describe themselves washing φοἰνικος garments in a stream. [Off]

λάμπρον

T.53 E. *Hel.* 420 [Status] πέπλους . . . λαμπρα

Menelaus describes his bright, fine clothes which were destroyed in the shipwreck. [Off]

T.54 E. *IA.* 74 [Status] λαμπρὸς βαρβάρῳ χλιδήματι

Chorus describe Paris' luxurious, bright, barbarian clothes, see No. 41. [Off]

Other Colours

T.55 E. *Phoen.* 326 [Mourning] σκότι'

Jocasta contrasts her dark mourning garments with white dress (metaphorical aspect). [On]

T.56 E. *Ion* 955 [Character Attribute] ἐν ὀρφνῃ . . . πέπλοις

Creusa describes exposing Ion wrapped in her dark clothing. [Off]

T.57 A. *Eum.* 45 [Ritual Dress] ἀργῆτι μαλλῳ

Pythia describes the suppliant Orestes, with his olive branch, topped with a white tuft of wool. [Off]

T.58 E. *El.* 1070-1 [Character Attribute] ξανθὸν

Electra accuses Clytemnestra, saying that as soon as Agamemnon left she was dressing her blond hair. [Off]

T.59 A. *Pers.* 315 [Dyeing as Metaphor] πυρρὰν . . .γενειάδα

Messenger describes the blood-stained, defeated Persians. [Off]

βαφός

T.60 A. *Choeph.* 1011 [Dyeing as Metaphor] φᾶρος . . . ἔβαψεν

Orestes describes Agamemnon's garment, dyed with his blood. [On]

T.61 A. *Choeph.* 1013 [Dyeing as Metaphor] πολλὰς βαφὰς

The actual dyes of the above garment are contrasted with the blood-stain. [On]

T.62 A. *Ag.* 960 [Status] εἱμάτων βαφάς.

Clytemnestra describes the household garments, dyed with purple. [Off]

Other references to colour or decoration, without specific terms

T.63 A. *Choeph.* 231-2 [Recognition through Patterned Textiles]

T.64 E. *IT.* 814-7 [Recognition through Patterned Textiles]

T.65 E. *Ion* 26 [Recognition through Patterned Textiles]

T.66 E. *Ion* 196-7 [Recognition through Patterned Textiles]

T.67 E. *Ion* 506 [Recognition through Patterned Textiles]

T.68 E. *Ion* 1417-24 [Recognition through Patterned Textiles]

Description of Figured Ritual Textiles

T.69 E. *Ion* 1143-65

The Coloured Clothing

Without substantial discussion, there is less to be said about the tragic references to the colour of clothing. Nevertheless, it is possible to make some observations, and often useful to contrast the tragic evidence with the comic. The range of colours referred to is not dissimilar, but slightly wider, the major additions being μέλας, πορφυρεος, and ποικίλος.[54] In terms of language, the major point of contrast is that tragic references to coloured clothing never take the form of substantives. Instead, colour-garment compounds are preferred, and both within and outside these, the garments are generally restricted to πεπλοι, φαροι, and στολαι.[55]

As in comedy, clothing in tragedy is indicative of status and context, and textual mentions often mark changes in status. In tragedy, however, this last is exclusively associated with entering mourning.[56] Indeed, mentions of black clothing are by far the most frequent and prominent, appearing either in

[54] A range of other decoration specifications are also used, cf. T.29-36 and p.128-9, 134-47 etc. It is interesting that ἀλουργος is used only once, and as a **synonym** for πορφυρεος. ξυστις and βατραχις are absent from tragedy.

[55] All of which can be regarded as archaising and/or generic terms, cf. English 'robe,' 'vestment' and 'gown'. s.v. LSJ.

[56] See T. 1-9, and especially T.14-16, contrast between black and white, and T. 44,45, where a similar contrast is implied between saffron (worn for ritual and marriage in these cases) and black.

descriptions of mourning, or as divine attributes.[57] This, obviously, can be attributed to an overwhelming concern with death.[58] Other than black, most of the other references can be fairly simply divided by whether they emphasise status or ritual context.[59] By and large, references to purple, decorated, or bright clothing have status connotations, while the references to white, saffron, and one (of the two) direct references to φοινικὸς clothing, have ritual significance.[60]

Another notable feature of these tragic references is the frequent use of dyeing as a metaphor, either in single instances (see T.49,50, 60, 61) or in extended metaphors. The example of the 'Agamemnon' is included in the references above, since it refers directly to colour. But it should not be forgotten that dyeing appears as an extended metaphor in '*Women of Trachis*' and to a lesser extent '*Medea*' also, and that it does so as a mysterious female art, which brings peril in the form of a gift.[61]

The previous chapter emphasised the importance of pattern as an aspect of colour in clothing. Although decoration is not mentioned in Aristophanes, it is, overall, the most common colour reference in tragedy, appearing as a character, status, and divine attribute.[62] In addition, three of the plays include scenes of 'recognition through patterned textiles,' in which a female character knows her male relative only through his possession of a patterned textile she had made.[63] These scenes (the *'Ion'* depends on them, foreshadowing the climactic scene throughout the play, including the lengthy description of the figured, dedicated textiles which are used for the ritual tent) underline the conceptual importance of patterned decoration as an aspect of clothing, by emphasising its uniqueness, complexity, and expression of the individual skill of its creator. They can also be seen to express a metaphorical connection with kinship, or

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[57] The other tragic descriptions of mourning which involve clothing, but not colour, are A. *Ch.*27-31 (tearing clothes); A. *Pers.* 1060 (tearing clothes); E. *Supp.* 97 (clothing unfit for worship).

[58] But cf. p.191-94 below, where black is not visually predominant, and p.248. It seems clear that in the symbolic 'language' of tragedy, μέλας, and black/dark clothing signify **death**. Thus, in tragedy, they also indicate mourning, but the existence of a clear symbolic association is not equivalent to evidence of practice. The extent to which black/dark clothing was, in practice, used in mourning and grave ritual is a separate and complex question, and one for which tragedy is not the best evidence, precisely because it utilises overt symbolism.

[59] Although for a variety of purposes; as character attributes, scene setting, and so on. See thematic indicators above. It should also be noted that Aeschylus does not use clothing purely as a character attribute outside these instances. Sophocles rarely mentions clothing (see below, n.61 for *'Women of Trachis'*) and T. 23, 29, 30 are the only mention of the colour of clothing. However, it should be noted that in *'Oedipus at Colonus'* Oedipus' rags are emphasised three times as an important attribute which reveals his situation and promotes recognition: 555-6 (Theseus recognises Oedipus) ; 1256-60 (Polyneices describes Oedipus) ; 1356-8 (Oedipus describes himself).

[60] Status: T. 22-28[ποικιλος], 31-36 [patterned], 37, 39-43[purple], 46[saffron], 52[φοινικος]53-4[λαμπρον], 62[purple dyeing]. [36, 46 & 54 also have connotations of effeminacy/barbarism, while 24 & 31 have a metaphorical component (complexity of pattern = plotted murder)] Ritual: Nos.14-20[white], 44-5, 47[saffron], 51[φοινικος], 57[white], 69[figured]. Seaford (1987: 106-30) Salviat (1964:647-54) Zeitlin (1965:463-508) See also S. *O.C.* 474-5; 1597; 1602-3 and *Trach.* 611-3 for other descriptions of ritual dress, not involving colour.

[61] S. *Trach.*572-4, 578-81, 603-9, 611-3, 674-7, 685-7 7 E. *Med.* 791-6, 1156-201. See also Wagner-Hasel (2002:17-33)

[62] But see above for assumed decoration in Aristophanes. Tragic references, T.21-36

[63] See T. 63-68

family ties, which is perhaps used to add to the pathos of T.24 &31, with their additional metaphor equating complexity of pattern with the complexity of plot and motive which led to Agamemnon's death.

4. Conclusions.

Coloured clothing in drama is clearly significant: however, considering the dramatic references in isolation makes it hard to say with certainty that this significance is not purely **constructed** by context. (The fact that the significance of these references is relatively easy for modern readers to assess and appreciate, itself suggests this to an extent). Therefore, before attempting conclusions, it would seem wise to refer to the summary table, and compare the evidence from Brauron with that of drama.[64] The similarity, both in the ranges, and the terms within them, does argue that the significance of these colours in clothing is **not** restricted to drama.

Just as the use of substantive colour-terms for garments in the inventories demonstrates that these are not, as might otherwise be supposed, Aristophanic innovations or idiosyncracies, so the parallel ranges of terms allow inferences to be made about the significance of the colours of dedicated garments; impossible from the catalogue alone. The most fundamental import of the correspondences is that they indicate that the range of terms attested from the catalogue is an accurate reflection of salience (likely anyway, but not certain, given the random nature of the extant texts).

Of course, more specific conclusions can also be drawn, especially where the sources support one another. From Aristophanes, it was concluded that the κροκωτὸς connoted femininity, sexuality, and ritual, a complex which is confirmed by several of the tragic references.[65] The ritual association with Brauron is confirmed by the dedications, and they, along with T.46 & 47, also reinforce the impression that the colour was precious.

The connotations of purple are too well established to need re-exposition here.[66] The contrast between tragedy and comedy in their respective use of προφυρεοῦς and ἁλουργὸς is interesting though (the latter is used only once in tragedy, in the *'Agamemnon'*) since it is not clear what qualities distinguished the two terms. Only ἁλουργὸς is used by the catalogue. It might be suggested that the tragic use of πορφυρεοῦς is related to its appearances in epic.[67] White is clearly linked with ritual and purity in the tragic references, and in A.23, although Aristophanes seems to emphasise its cleanliness more.[68] That

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[64] See p.58f, 138f

[65] See A.1-11 and T.46-48 and n.60

[66] Arr. *Anab.* 6.29.6; Ath.*Deip.*2.48;5.215;7.289;12.512, 522, 525, 543 ; Paus.3.21.6 etc. and below, n.67 The nature of the appearances of ξυστιδωτὸς in the catalogue (if the two terms are related) would seem to mitigate against regarding colour as the primary quality of the ξυστὶς. The evidence from Ch.3 makes it more likely a fabric term (see Glossary, p.134-5) i.e. velvet. This does not mean it was not purple, see n.45 for conflation of colour and worth in fabric.

[67] πορφυρεὸς applied to textiles in Homer: Il.3.125; 10.133ff; 22.440-8; Od. 10.352; 19.225-6; 19.241-2 etc. cf. ἀργητὸς, λαμπρὸς and the archaic garment terms in tragedy, n.55. See p.235 etc. and p.58f, for purple in the regulations.

[68] cf. p.271

μέλας and other 'dark' terms for clothing do not appear either in the catalogue or in comedy would only seem to confirm their mourning connotations. Given the relatively common references to φοινικὸς in drama, it is somewhat surprising that it appears only once in the catalogue, but perhaps this too can be explained with reference to its dramatic connotations: of masculinity and the military in comedy, of blood and the Furies in tragedy?

The significance of pattern, so marked in the catalogue, is explicable in the light of the tragic evidence, where its basic associations are with status and luxury, and more metaphorically with kinship, complexity and individuality.[69] Given the points made in the previous chapter about the catalogues as public records of the skills and accomplishments of women, this tragic complex of connotations would certainly help explain the salience of decoration in description. As for the vast difference in the range of terms between the sources: tragedy simply asserts the existence and significance of pattern on clothing – the catalogue must distinguish **between** patterned garments – and tragic language is consistently non-technical.[70]

If it has been possible to suggest some conclusions from the dramatic evidence (and its concordance with the previous chapter) what it fails to provide is many clues as to why these particular colours were salient. Both the above sources deal only with a restricted range of terms, and while the conceptual opposition with unremarkable colour is clear, it is not possible to go beyond the implication on their evidence. In order to do so, it will be necessary to consider other sources. Firstly (in Chapter Five, Lekythoi) another representative source, albeit one bound by different conventions and practical constraints, which nevertheless may, like the Brauron catalogue, provide evidence for overall patterns of colour use (and therefore comparable evidence). And secondly (in Chapter Six, Dyeing) technical evidence about the production of colour in clothing, which can elucidate the relationship between salience in production and in culture, and also offers the best hope of understanding the relative characteristics of remarkable **and** unremarkable colours.

[69] See p.170
[70] See n.55 and p.102

Chapter Five: Coloured Clothing on Athenian White Ground Lekythoi

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1. Preface

This chapter considers another type of representative evidence. Its main aim is to investigate the potential of white-ground polychrome lekythoi, as evidence for **patterns** of colour use in clothing. Like the dramatic references, lekythoi represent colour (as opposed to documenting it) but they are more aptly compared to the Brauron catalogue in that they represent an entire range of clothing, in which marked and neutral colour appear with parity. The lekythoi are also comparable to the catalogue in the sense that the significance of the colours they represent is implicit: certain kinds of colour are salient in these depictions of clothing, but the lekythoi themselves (unlike the dramatic references) do not give evidence of **why**. Further, in contrast to **all** the other evidence, they can truly be said to represent the ubiquity of colour in clothing: all the garments on the lekythoi are coloured, for neutral colour is colour no less than added colour. In the catalogue, the opposition between marked and neutral colour was implicit. On the lekythoi it is visible. Therefore, in terms of the thesis as a whole, the primary functions of this chapter are: to establish a context for the restricted ranges of marked colours, which are found in other evidence, and provide comparative evidence for patterns of colour use.

Since the chapter contains only one colour picture of a lekythos, its form and rationale should be explained from the outset. There are both practical and theoretical reasons why the specific colours surviving on specific lekythoi are not discussed. Practically, such a discussion would require that one visit each of the lekythoi concerned in person, and record their observed colours in accordance with a recognised international colour notation. It is hard to over-emphasise the general value of such a study, given that cost prohibits the publication of more than the occasional colour photograph, and that reproduced photographs are a questionable means of studying colour in art anyway. Yet this is a major undertaking, and one for someone with funding. Further, although the existence of such information for large numbers of lekythoi would be helpful in appreciating the reality of lekythoi as painted artefacts, and fascinating, it would not remove all of the problems involved in using these vases as a source for colour in clothing.[1]

The form of **this** study has been conditioned by the fact that its main sources are monochrome photographs and published descriptions. But its rationale is that it is necessary to compare the information from large numbers of depictions in order to consider the extent to which the depiction of coloured clothing relates to actual colour use for clothing. In studying or considering single lekythoi, one is inevitably looking at the work of one artist, and at the results of his personal decisions, which can neither be analysed nor understood. However, by looking at groups of vases, it may be possible to recover patterns of colour use by painters which transcend the personal, and which are therefore more likely to reflect the actual use of colour for clothing. Comparing groups of vases by the same painters to a control group seemed a logical way to do this.

Another reason I have chosen to look at colour use across groups of lekythoi, rather than in individual images, is the wide variation in the number of figures portrayed (usually two or three, but

ranging between one and five) and therefore in the scope for colour use on different vases. Similar variation occurs in the number of garments portrayed, even on vases with the same number of figures. For instance, a vase portraying two women might depict six or seven items (two chitons, two *himatia*, a *sakkos*, a hair band, other *taeniae*) while one portraying two youths might only have one, a *chlamys*, or two female figures might in fact wear only *peploi*.[2] This study deals with figures from groups of vases in order to bypass these disparities.

2. Lekythoi: Clothing and Art

This chapter begins by exploring the various kinds of information that white-ground painted pottery can provide, in order to make some specific observations about the representation of coloured clothing (as part of the figurative decoration of white-ground lekythoi) and its possible implications for the study of colour in Greek clothing. Among the few surviving representatives of polychromy in Greek art, this type of lekythos has a clear importance for our understanding of the use and significance of colour in Greek clothing. This potential importance is increased by its short series, especially as this can be linked to a relatively brief period in the 5th Century, and to production for the home market.[3] Moreover, because the scenes on many lekythoi depict citizens engaged in both ritual and domestic activities related to the funereal purpose of the vases themselves, they may conceivably offer an unparalleled glimpse of actual 5th Century Athenian dress in 'glorious Technicolor.' These lekythoi provide a tantalising contrast to the overwhelmingly monochromatic art which forms our understanding of Greek clothing.

2.1 Problems

Nevertheless, it is precisely because this glimpse is so rare that the problems involved in using these lekythoi to study colour in clothing must be carefully considered. They are not insurmountable. However, unaddressed, they compromise the prospect of making useful comparisons between evidence from this source, and the other types of evidence concerning colour and clothing which have been discussed above.

The first point is that these lekythoi are not primarily pictures of clothing: they were containers for oil, part of whose decoration is scenes of people engaged in particular types of activity. To treat white-ground lekythoi as documenting clothing, or colours used for clothing would surely be a fundamental misconception. The second point is that, although viewed side by side with the stylisation imposed by red- and black-figure techniques, the figurative decoration on these pots may seem comparatively 'photorealistic,' we have no reason to assume that this was a priority of their painters. Although editions

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[1] See Section 2

[2] This term is used to refer to sleeveless *chitones*, and is not a contribution to the debate as to whether it was a separate garment.

[3] For full references and discussion, Kurtz (1975). See also Arias & Hirmer (1962) Beazley (1942) Bridjder (1984) Caskey (1931) Cook (1960) Fairbanks (1914) Gardner (1896) Karouzou (1956) Kurtz

which abstract the image into two dimensions certainly make it much easier for the viewer to appreciate nuances of draughtsmanship and composition, they tend to obscure the fact that all these figures were drawn (with greater or lesser degrees of skill) on the curved surfaces of pots with a brush and glaze.[4] If the drawing surface imposed certain constraints on the painters, so too must other aspects of the medium.[5]

In short, it must be remembered that these are artefacts. The figured scenes with which they are enlivened are works of artistry, though not necessarily of art, and as such, are bound by the constraints of medium, convention, composition and aesthetics, not to mention the various styles and talents of the decorators. Therefore, when we see clothing on these individual vases, it is not only through the conventions of artistic representation and the limitations of the medium, but also through the styles, ability and deliberate choices of their decorators. Colour choices too would be affected by the personal preferences and aesthetic judgement of the decorator, in addition to the availability of pigments and the demands of firing.[6]

2.2 Clothing in Art

Problems of this kind contribute to the tendency to view the study of Greek clothing as an offshoot of the study of Greek art.[7] However, they need not obviate the usefulness of these lekythoi for the study of the social aspects of Greek clothing, although they do make it essential that any attempted 'reading' of these vases (and indeed any art) for such evidence be critical in the extreme.

The social aspects of clothing are studied because clothing provides an immense amount of information about the wearer to his or her contemporaries. The 'meaning' of clothing in this sense cannot be divorced from its representation in art. There is no need here to go into the complicated and multivalent nature of communication and meaning in dress - it is enough to state that clothing conveys both overt and subtle statements about an individual's perception and assertion of social status, role and immediate context - ritual, domestic, public etc.[8] While much of this information is undoubtedly transmitted and perceived on a sub- or semiconscious level, it is no less important for that. Indeed, it is this aspect of communication through dress which gives it a crucial yet almost subliminal role in the artistic representation of people. A great deal of interest has in recent years been focused on the representation, role and meaning of nudity and nakedness in Greek art, to the extent that clothing has often been seen as the uninteresting normative background to the dialectic of the nude in Greek culture.[9] It is my view that clothing - for both sexes - must have been the forum for an equally critical dialogue between social

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(1989) (1984) Noble (1988) Oakley (1997) Riezler (1914) Robertson (1959) Shapiro (1991) Tzachou-Alexandre (1998) Wehgartner (1983) Koch-Brinkmann (1999)

[4] Riezler (1914)

[5] See Section 3 & Dimitriou (1951:105-6, 163-7, 171-4, 181-201)

[6] See Section 3.2

[7] See p.8 & Oakley (1997:29-31)

[8] See p.256-66

[9] e.g. Stewart (1997) Bonfante (1989)

construction and individual expression in Greek life, and that as such it demands study as a form of social artefact, in art as in other areas of culture.[10]

2.3 Realism

When the attempt is made to use artistic creations (visual or textual) as historical evidence, the relative realism of the piece must always come under discussion. In terms of clothing, this discussion often centres on whether particular aspects of what is seen in art (for instance transparency, defined and artful folds, voluminousness) are accurate depictions of real clothes, or instances of artistic licence. As both can generally be convincingly argued, the problem can better be approached from a different angle.

In the first place, it hardly seems helpful to consider 'realism' in terms of relative deviation from an ideal of absolute accuracy. Instead, it seems more useful to consider how the viewer is expected to respond to the way in which these images are constructed. In the lekythoi considered here, the images are clearly of people; some are drawn sensitively and with skill, others more crudely, but each image displays a self-consistent degree of 'realism' which is relatively constant across the group. The figures are not 'stick-figures' nor stylised, nor indeed generic (i.e. facially similar) although none of these techniques would impair our understanding of the scenes. The viewer is not required to assess the 'absolute realism' of the images, because they are internally consistent in the level and type of 'realism' they present. To put it crudely, I do not believe that the clothes which are represented can be less realistic than the people shown wearing them.

Further, the intent of these scenes is both decorative and communicative, in contrast to the intent of much modern art, which is to cause the viewer to question and explore their desire and ability both to 'read' the image, and to derive aesthetic pleasure from it. The images on these pots, on the one hand, contribute to their aesthetic appeal, and on the other, advertise or commemorate their purpose by providing the viewer with scenes which will resonate with their own experiences. Both of these purposes require that the image be easily and pleasurably assimilated.

'Art' in the 20th Century had to redefine its aims and techniques with reference to photography, making a virtue of defying the viewers expectations with incongruity. As anyone who has been taught to draw, particularly the human figure or face, will know, there is to a certain extent, a 'rightness' or 'wrongness' to the completed image. If one area is too large or small, too detailed or too 'loose', asymmetrical or at a different attitude, it will draw the eye and provoke more critical scrutiny of the whole. No two people draw the same subject in the same way, yet as long as both images are internally consistent, we can quite easily accept them as equally fair representations of the same object and class their differences as ones of style. Incongruity of one aspect of an image is most obviously translated by the viewer as inability to depict it with the same level of competence, and it is only accepted by the viewer when it is clearly deliberate and serves some purpose. I can think of no reason why the painters of these lekythoi would call their skill into question by challenging the contemporary viewer with incongruity.

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[10] See p.256-75

I have argued that the figurative scenes on these lekythoi were intended to be both decorative and communicative, and that in order to be so they would have to display internal consistency rather than a particular degree of 'absolute realism.' If this is the case, then we have in their depictions of the human face and figure a rough guide to the level of consonance with the viewers' expectations being aimed at in their clothing. One can also argue that as well as being consonant in this way, the clothing as it is depicted should accurately reflect its contemporary social 'meaning' to a similar extent.

Aside from its questionable realism, Greek art is generally devalued as a source of information about Greek clothing because of our own artistic heritage. Greek clothing was clearly 'draped' as opposed to 'fitted' and to the modern mind, there is a tendency to equate 'draped' with 'drapery' as it figures so prominently in Western art from the Renaissance onwards. Drapery in Western art is obviously related to Classical clothing, yet it is, in terms of the 'semantics' of dress, deliberately null. Pseudo-classical drapery is generic clothing, used to distinguish the artistic nude from the naked body, or to place the subject in an a-historical or heroic context.[11] This is how we have learned, as viewers, to read drapery in art, and it is a difficult lesson to overcome, despite a rational appreciation of clothing in Greek art as actual clothing. In my opinion, in order to advance our understanding of both Greek art and Greek dress, a conscious effort to overcome this initial dismissive attitude is demanded.

2.4 Significance and the Depiction of Clothing

It has been said that Greek clothing was 'lacking in significance' compared to, for instance, Roman dress.[12] In terms of deliberate, overt symbolism and communicative function, this may or may not be the case, for no truly definitive statement can be made without exhaustive analysis and study. Were we to contend that Greek clothing fulfilled purely practical and aesthetic functions, the burden of proof would be upon us, and given that there exist numerous instances which suggest that the Greeks were concerned with the social significance and communicatory function of clothing, such a contention is simply untenable.[13] This is not to say that we understand the 'meaning' of Greek dress, but then it is not necessary to understand a foreign language in order to recognise it as such. Nor is it to undervalue the undoubted ideological complexity of nudity in Greek art. I simply regard it necessary to state explicitly, in this discussion of artistic evidence, that when Greek people saw each other clothed, they must have found it natural to 'read' this clothing. Deliberate communication through dress is only one aspect of its social significance. Even had the absence of this aspect of its function in Greek society been definitively established, this would not imply that Greek people did not make unconscious inferences about social status, role and context from the clothing of their peers. These are arguments for explicitly linking the representation of clothing on these lekythoi to its actual forms and meanings in fifth century Athens.

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[11] Generally, Hollander (1975)
[12] Mills (1984:257)
[13] See Ch.7, generally, and especially p.250-56, 259ff, 269ff

The communicatory function of clothing in life is mirrored in art. Even the above-mentioned 'reading' of drapery in post-Renaissance art is evidence of the power of clothing to contextualize the image of the human figure. After all, the human figure is itself generic, in both art and life, unless the person is already well known to us. In life, we may rely upon the other forms of communication - movement and vocalisation - to illuminate the intent and nature of a person. In art, we have only clothing and physical appearance to go on. Both are, of course, subject to a large degree of manipulation in the image, but this must, even in modern art, remain intelligible if a point is to be made, or an impression conveyed. If we fail to recognise the clothing, we must read the figure as 'foreign' or imaginary. If we broadly recognise the clothing but do not understand its 'meaning' we will see the figure as either 'foreign' or 'archaic,' and so forth. Clothing acts to enhance our perception of the depicted figure.

The significance of these points is that we may clearly state that the Greek viewer would expect to recognise, and understand, the clothing of these depicted figures. That is, in order to enhance, rather than detract from the images, clothing as depicted on these pots (where we can be reasonably sure that 'ordinary' people are being depicted for a contemporary home audience) must reflect, in some way, the implicit social meanings accorded to dress in everyday life. Again, this is not to say that they must do so faithfully, in terms of exact realism, or of a representative cross-section of styles of dress. Nevertheless, the 'meaning' which would be expected in life is transferred to art, and those elements of dress which were particularly significant may be expected to be most intact.

Moreover, what applies to form in clothing should also apply to some extent to colour. One cannot expect exact equivalence of shade, or point to a red and say that such a hue must have been achievable with dye and fabric. What can be said is that the variety of colours shown on these lekythoi, and the range of garments to which they were applied, should reflect the variety, the combinations of colour and type, which were within the bounds of reason in fifth century Athens, if not unremarkable. There may be better evidence for the **specific colours** of clothing than these lekythoi, however comprehensively studied, can ever provide. However, they do provide excellent evidence about the **place** of colour in clothing. What is clear from the tables below is that colour was an essential component of Athenian dress in the fifth century. Painters, freed from the constraints of black- and red- figure, make frequent and enthusiastic use of colour on these lekythoi, and it is in their depictions of textiles that this is most vibrantly apparent. It might be argued that this enthusiasm is as lacking in discrimination or relationship to reality as a child let loose with a colouring book and crayons.[14] However, this goes against our image of the vase-painter as artist, and ignores the fact that other aspects of the scene, which might equally well have been 'coloured in,' are treated with restraint.

3. Lekythoi: Techniques

The technical and stylistic evolution of white-ground lekythoi interacted with the perceptions and representative aims of the painters to produce the finished images that survive today. The type of lekythos

discussed here was not the only form taken by Athenian white-ground pottery. During the first half of the fifth century, white-ground was used for a variety of shapes, and it was only after c. 450B.C. that it became associated almost exclusively with lekythoi.[15] Nor were all white lekythoi of this specific type (combining pattern with figurative polychrome decoration). During the 6th and early 5th centuries, lekythoi were produced using black-figure techniques on the white-ground, and lekythoi decorated purely with patterns (hence 'Pattern Lekythoi') continued to be produced throughout the fifth century. Moreover, when we consider the painters of the lekythoi under consideration, it is worth remembering that many of them also worked in red-figure, and that the basic techniques used on white-ground in terms of outline drawing were closely equivalent to red-figure, but without the black painted background.[16] However, this chapter concentrates on the specific type of lekythos that emerges particularly after c. 470 BC when iconography "became progressively funerary, affording us a privileged glimpse of the death rituals and beliefs of 5th century Athenians."[17] The gradual decline of this type can be traced through approximately the last third of the century, and production stops altogether at its end.

Within this outline history, various changes can be discerned. The squat, cylindrical shape of mid-century becomes narrower, tapered and more elongated around the neck area. The method of outline creation changes; from black relief lines (500-475); to dilute warm-brown glaze (475-50); joined by matt red or black outlines that replace glaze by c. 425. So too does the white-ground itself; during the first half of the century its colour was creamier, this being replaced by a whiter ground in the later period, while in the final years of the series the quality of the ground is debased, leading to flaking and fading of the images.

These last two developments can be seen to have affected the images under scrutiny in a number of important ways. The images on these pots appear to have been constructed using fine lines for outlines and details, combined with blocks or washes of colour.[18] The lines were painted on with a fine brush (traces of preliminary sketching done with charcoal or stick can sometimes be discerned). The change in composition of the outlines can be linked to changing drawing styles, and this link is most apparent in the use of matt outlines later in the century, which appear to have been applied with a softer brush. The "new practice was more suitable for the free-flowing style. . .of the last quarter of the century, which came closer to that of panel and mural painting."[19] The changes in the ground meant that the use of 'second white,' especially for women's skin, but also for garments, declined after c. 450 BC. This change is

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[14] See p.194

[15] The reason for this may be due to the relative lack of durability characteristic of the white-ground, which perhaps contributed to its unsuitability for other than funerary purposes. Certainly, the quality of the ground in this respect deteriorated during the late fifth century, possibly because resistance to wear was no longer a priority. Haywood (1997: Introduction & Technique). [The text has no page numbers]. However the increased preservation rate due to funerary context may bias our perception of use.

[16] See Noble (1988) Arias & Hirmer (1962)

[17] Haywood (1997) Previous to this, subjects were largely mythological, though often alluding to death.

[18] See Section 3.2

[19] Haywood, (1997: Technique). One no longer sees bristle marks in the matt outlines.

potentially significant for the assessment of colour in lekythoi, particularly those which predate it, as it questions the assumption that garments left in outline represent white fabric.[20]

Colours too change over the period. Both fired and unfired pigments were used on lekythoi, the latter particularly after mid-century. "Red, black, yellow and the white used for second white were usually fired and were fairly durable."[21] Perhaps purple, the other colour commonly used to enhance black-figure, might also be added to this list. However, these seem to have been the only colours subjected to the kiln. The wider range used to such effect in the last half of the century were added after firing.[22] Naturally, such paints were more fugitive, and this fact, combined with the debased quality of the ground contributes to the loss of colour from many lekythoi.

These technical details provide necessary insights into what can be made of the images as evidence. For clothing particularly, the combination of fired drawn outlines and both fired and unfired colour blocks has a great impact on what we see today. It seems entirely possible that garments which now appear without colour once possessed it, at least on lekythoi from the last half of the century, in the same way that many of the figures which now appear without clothing may have originally had their garments painted entirely after firing (without durable outlines). We may also question the extent to which the fired outlines were always intended to show through the unfired garments painted over them. The final general aspect of these lekythoi to demand consideration is their iconography. As intimated above, before c. 470 a variety of scenes, including mythological subjects, were depicted. Explicitly funereal subjects begin to appear around this date, and increase to near exclusivity during the next 50 years. This may explain the relatively limited iconographic repertoire of the lekythoi, which makes it easier, and more tempting, to compare and contrast scenes despite differences of style and skill. Much of the iconography is rarely found on other types of painted pottery, although *prothesis* scenes, which were common on earlier vases are rare on lekythoi. Depictions of 'visits to the grave' predominate. Scenes of the preparation for such visits are more common pre-450, but remain favoured subjects of some noted painters throughout the whole period. Less common are scenes combining mythological and mortal figures - Hypnos and Thanatos bearing off the body of the dead or dying, and Charon, with or without Hermes, about to ferry the dead person to the underworld. These are perhaps less interesting to the student of clothing, although they still contain images of the Athenian dead, and also shed some light on the role of clothing as an iconographic attribute.[23]

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[20] See p.193 and Oakley (1997:26)

[21] Haywood, (1997:Colour)

[22] Haywood (1997:Colour) e.g. casein obtained from milk. "Red: either red ochre or, less commonly, vermilion. Pink: a mixture of red ochre and chalk before 330B.C.. . . later. . . rose madder, a natural dye made from the root of a plant. Yellow: yellow ochre. Blue: Egyptian blue, or a mixture of silica, copper, chalk and natron (carbonate of soda). Green: malachite, an ore of copper. Black: soot or bitumen. White: either chalk or gypsum." This list of pigments is taken by Heywood from studies made of later Attic terracottas.

[23] cf. p.164-67, 169-72, and esp. p.170, n.57 for discussion of black clothing and death vs. death ritual.

3.2 Pigments

It is extremely difficult to make general comments about the use of pigments on white ground lekythoi without having undertaken a study such as that described in the preface to this chapter. Commentators rarely discuss the actual pigments used, and what information there is seems to be largely taken from the analysis of later terracottas.[24] The parameters of this study preclude my making extensive statements, although it is clear even from photographs that a variety of different pigments were used for the same colour range.[25] Nevertheless, it is worth emphasising that white-ground was a versatile medium, which allowed the decorator to use both ceramic and other painting techniques.[26]

It may therefore be suggested that the pigments used were probably of three basic types – glaze pigments for firing, such as were used on other pottery, earth pigments, and pigments of plant, or other mineral, origin. The latter two were those commonly used for other types of painting, and would be applied to lekythoi using techniques originating from painting rather than ceramics. As well as having differing practical properties (bound pigments are clearly more fragile than glazes which are chemically bonded to the surface) each of these types of pigment has different optical properties. Glazed colour is, as can be seen from the numerous examples of other pottery types, generally intense, and often reflective. Earth pigments, then as now, give solid colours that cover well, but are not notable for their brightness, and are not well suited to giving translucent effects.[27] Other minerals (malachite) and artificial chemical compounds (Egyptian blue) were also used, which are distinguished by having better reflective properties – producing brighter colours.[28] The best known organic pigments – vermillion and the madders, both still in use for high quality paints – are produced as solid pigments in a similar way to the process of dyeing with these substances, both of which were well known long before the classical period.[29] They are, in fact, often produced accidentally during the dyeing process.[30] Both give bright, intense reds, and I would suggest that some of the particularly intense reds used for textiles (often distinguished by the fact that they have 'spread' beyond their glaze outlines) are of this origin. However, it might also be suggested that

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[24] See n.20, Oakley (1997:25-7) Generally, Koch-Brinkmann (1999). Lack of scientific analysis using modern techniques like spectroscopy. See p.163 for terracottas. cf. Osborne (1968:274-78) Rozenberg 'Pigments & Fresco Decoration in Herod's Palace' delivered at Edinburgh, 2001

[25] Thick yellow, different reds etc. Azevedo (1954:151-67) Karouzou (1956:71-4) Lepik-Kopaczynska (1958:79ff) Shear (1928) cf. Oakley (1997:25-7)

[26] Keuls (1978:71, n.45)

[27] Generally, Feller (1986). Due to optical properties of the constituent particles, regardless of how finely they are ground, or the binder used. There is a tendency to regard the use of casein and albumen as technically primitive, so it is worth remembering that much of the art of the High Mediaeval Period was created using them, and that they were state of the art until the discovery of slow-drying oils. Properly treated and applied, they are effective binders. Grissom (1986:141-50, attested ancient uses 162) Gage (1993: 14-16, esp.15, 29-31, esp.31) De Grandis (1986:13-16)

[28] Fitzhugh (1986:109-22, attested uses 134) Wainwright et al. (1986:219-49, attested uses 249). Bruno (1977:71) cf. Lepik-Kopaczynska (1962:23-31) and (1958:77-9), Pliny *NH.* 35.50 and Bailey (1932) comm. ad loc.

[29] Scweppe & Roosen-Runge (1986:255-70) Hurry (1930) Gage (1993:26)

[30] See p.213-14

some of the translucent colours on lekythoi were produced by dyeing the protein binders themselves.[31] And it is worth noting that many of the sparse literary references to dyeing refer to dyeing earths and stones, another means of widening the pigment range.

At any rate, the choice of pigments and techniques available to decorators of the white-ground need not have been excessively limited. However, an important point is that the range of different shades and options differed for the different colour groups. The range of blue pigments was particularly limited, while the range of reds was particularly wide.[32] It is also worth stating that the concept of colour-matching (that the painted representation should attempt to reproduce the actual shade of the object depicted) can be traced to the development of the technical capacity to do this easily – slow-drying, readily mixable and relatively stable, oil paints.[33] It was not necessarily even an aim of earlier artists.[34]

One final point to be made is that painting with bound pigments on a double curved surface is not a process particularly apt to depicting detailed decoration.[35] It can clearly be seen on most lekythoi that the majority of the detail has been created in glaze before firing, and while some do attempt to depict patterns on clothing, these are largely restricted to borders.[36] It is not to be expected therefore that lekythoi will inform us about the use of colour as pattern in clothing which emerges so clearly from the Brauron inscriptions.[37]

4. Methodology and Material

As was intimated in its Preface, this chapter focuses its analysis not on the level of the individual lekythos, but on that of individual figures over groups of pots. These groups are of two kinds: a selection of the works of individual painters (63 vases): and a control group provided by the lekythoi from the National Museum, Athens, catalogued and described by Collignon and Couve (186 pots).[38] In order to

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[31] cf. Achilles Painter's yellow to thick yellow, Oakley (1997:25-7 etc.)
[32] Bruno (1977:73-77) Keuls (1978:71) cf. Gage as n.25
[33] De Grandis (1986:58-62)
[34] Moreno (1965: esp.13-14) Bruno (1977:50) "abstract attitudes" re. use of four distinct reds within a painting.
[35] See Carroll (1965) for full discussion of patterned textiles in art.
[36] Lekythoi depicting patterned textiles are asterisked in list p.202-03
[37] See p.128-32 etc.
[38] *'Catalogue des Vases Peints du Musee Nationale d'Athenes'* (Paris, 1902). In this volume, white-ground lekythoi are numbered 1625 to 1841, although the catalogue provides no clothing descriptions for 22 of these (where a clothing description is provided, but no colours mentioned, I have assumed that the clothing is of the 'colour of the ground'). The control sample therefore amounts to a total of 186 vases (194 minus Painters'). Unfortunately, this catalogue does not describe its basis for inclusion, nor does it detail its rationale of arrangement in series. The sole distinction amongst the lekythoi is that they are divided into those of the first and second periods, a distinction I have maintained (see n.42). Since the criteria for arranging lekythoi chronologically are complex, I use only this broad distinction, and do not attempt to comment on developments over time, although I have borne in mind the general comments made above concerning technique. The sample of vases by specific painters was taken from a previous study (Cleland, 1999) and is also essentially random, in that the sample group for that study was chosen on the basis of the availability of both photographs in the *C.V.A.* and descriptions in Fairbanks (1914) being only subsequently divided by attribution to painters.

reduce the potentially enormous amount of information which pertains to these 249 vases to manageable proportions, and since I am interested here only in colour, limited descriptions of each lekythos were compiled, detailing only the combinations of figure, garment and colour shown on each. These descriptions are not given here (for reasons of length) so a single example is provided below for reference. They represent what I believe to be the minimum amount of information which can still maintain a link to the individual pot as image. Their aim is to provide a standardised description which makes it possible to compare the use of colour for clothing between one vase and another, and to identify common features, both within the work of individual painters, and between them. Since this standardisation ignores aesthetic impact, individual style and ability, I believe that these descriptions provide a reasonable basis for comparison of colour use, while retaining the individuality of each lekythos as an image.

Nevertheless, the volume of information contained in the descriptions is still very large. Although the shortened descriptions make it easy to see which colours appear on each individual vase, sheer weight of numbers makes it difficult to draw comparisons or conclusions. This chapter focuses on three particular aspects of the depiction of clothing:

a) the proportion of garments which are given added colour

b) the proportions of inner, outer, and miscellaneous garments which are given added colour

c) the proportions of garments given added colour worn by men and women.

Each of these aspects is expressed in tables below (Sections 5.2, 6.2, 6.4) and each of the tables is articulated according to three essential divisions – specific painter pots, pots from the 'First Period' and from the 'Second Period' – with subdivisions for the individual painters in the first case, and into groups of approximately twenty lekythoi for the others.[39] The general points about the material and methodology of this study which need to be emphasised are that: neither sample group was selected with reference to colour: that the total number of pots considered is large: and that the tables allow the information to be surveyed within as well as between the groups.

[39] More specific points about the arrangement and analysis of the data will be made below, p.191ff

4.2 Sample Relationship between Description and Lekythos

No.	Figures	Garments	Colours	Notes
Achilles 27	woman	peplos	dark red	
		hair cloth	dark purple	
	taeniae		white	spotted + patterned

5. Colour in Clothing as Depicted on Lekythoi

This first part of the analysis of the depictions of clothing on the lekythoi concentrates on the extent to which patterns can be discerned in the use of colour. Section 5.3 below explains the existence of such patterns, and relate them to colour use for clothing. The reader will by now be familiar with my preference for using the tabular format to express selected aspects of complex bodies of information, but still, these tables require some explanation. In this group of tables, the first column contains the catalogue numbers (or painter attribution) of the lekythoi referred to in each row. (I have retained the working subdivision into two pages of descriptions because this gives an indication of the presence and absence of uniformity within as well as across the entire sample).

Subsequent columns display the incidence of items of each colour in each group. The basic range is eleven colours, although the descriptions indicate a wide range of variation within each of these basic colour designations (red, for instance, covers reds described as bright, light, dark, vermillion, scarlet etc).[40] Given the inevitable subjectivity of the source descriptions, it is futile to try and be more exact. The last three columns give subsidiary information about the items, including those which can be inferred to have disappeared, and those which appear transparent, but all the numbers in these columns refer to garments which have already been entered in the colour columns.

The column headed 'Range' gives the number of colours used in the group, and is of most significance in Table 2, although the similarities of colour range between the arbitrary interior divisions of Tables 1 and a is noteworthy. The rows headed 'Total' give the total incidences of each colour within the overall sample groups, expressed both numerically, and as percentages for easy comparison. Each group covers two rows of the table; the first row shows the main colour of garments, the second row shows the incidence of colours as a second colour, i.e. as a border or pattern. The exception is the 'C. of G.' column, where the figures in brackets show the numbers of 'colour of ground' garments in the group which have coloured features.

Table 3 replicates the information in simplified form to facilitate comparison between the two control groups and the individual painters. Throughout this table, numerical values are also expressed as approximate percentages, to facilitate comparison.[41] The information is a condensation rather than an extrapolation of the descriptions, while the form of the tables simply seems the best and most informative way to present the information for comparison and comment. Such conclusions as I feel can be drawn are presented below.

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[40] This figure cannot be accorded too much significance, given the fact that these ten colours (plus the colour of the ground in this case) are simply the 'basic colour terms' of the modern metalanguages used in the descriptions. (See p.46-9) It is clear from both the published descriptions and photographs that this colour range is not the same as the pigment range, which is wider, see p.180-81. What is important is to note that the full 'spectrum' of colours appear (though with varying frequency, discussed below, p.191-2). Note absence of 'orange' see p.226

[41] Since the table deals with very disparate numbers, the total percentages are obtained from the numerical totals, not averaged percentages.

5.2 : Colour Tables 1& 1a (A.N.M. Lekythoi, First & Second Period Groups)

Group	C. of G.	Red	Black	Yellow	Pur/Vi	White	Brown	Green	Blue	Rose	Grey	Range	Dis.	Transp.	2 Colour
1625-34	7	7	4	0	3	6	2	0	0	0	0	x 6	2	1	2
2nd Colour	-	*1*	-	-	-	-	*1*	-	-	-	-	*x 2*	-		
1635-50	25	1	6	0	1	2	2	0	0	0	0	x 6	0	0	0
2nd Colour	-	-	-	-	-	-	-	-	-	-	-	-	-		
Totals	**32**	**8**	**10**	**0**	**4**	**8**	**4**	**0**	**0**	**0**	**0**	**x 6**	**2**	**1**	**2**
2nd Colour	-	*1*	-	-	-	-	*1*	-	-	-	-	*x 2*	-		
	48%	**12%**	**15%**	-	**6%**	**12%**	**6%**	-	-	-	-		-		

Group	C. of G.	Red	Black	Yellow	Pur/Vi	White	Brown	Green	Blue	Rose	Grey	Range	Dis.	Transp.	2 Colour
1651-1673	13	23	5	4	1	1	0	4	4	1	0	x 9	1	0	10
2nd Colour	*[4]*	*7*	-	-	-	-	-	*1*	*1*	*1*	-	*x 4*	-		
1674-1791	20	29	6	0	8	1	1	0	2	0	0	x 7	6	0	4
2nd Colour	*[1]*	-	-	-	-	-	*1*	*1*	*1*	*1*	-	*x 4*	-		
1692-1713	15	31	4	7	3	0	3	0	3	1t	0	x 8	4	2	4
2nd Colour	*[1]*	*1*	-	*1*	*1*	*1*	-	-	-	-	-	*x 4*	-		
1714-1737	22	35	1	2	0	0	1	2	0	0	0	x 6	1	3	8
2nd Colour	*[3]*	*3*	*4*	-	-	-	*1*	-	-	-	-	*x 3*	-		
1738-1760	17	41	4	2	1	0	0	0	2	0	0	x 6	0	1	3
2nd Colour	*[2]*	*3*	-	-	-	-	-	-	-	-	-	*x 1*	-		
1761-1791	14	26	4	0	3	0	2	0	1	0	0	x 6	11	0	3
2nd Colour	*[1]*	*1*	-	-	*1*	-	-	*1*	-	-	-	*x 3*	-		
1792-1821	25	23	3	1	1	0	2	1	1	0	0	x 8	9	4	5
2nd Colour	*[2]*	*3*	-	*1*	-	-	-	-	*1*	-	-	*x 3*	-		
1822-1841	10	13	3	4	1	0	2	0	1	0	0	x 7	4	1	0
2nd Colour	-	-	-	-	-	-	-	-	-	-	-	-	-		
Totals	**136**	**221**	**30**	**20**	**18**	**2**	**11**	**7**	**14**	**2**	**0**	**x 10**	**36**	**9**	**36**
2nd Colours	*[14]*	*18*	*4*	*1*	*2*	*1*	*2*	*3*	*3*	*2*	-	*x 9*	-		
	29%	**48%**	**6.5%**	**4.5%**	**4%**	**0.5%**	**2.5%**	**1.5%**	**3%**	**0.5%**	**0**		-		
Totals	**36%**	**43%**	**8%**	**4%**	**4%**	**2%**	**3%**	**1%**	**3%**	**0.3%**	**0**				

5.2 : Colour Table 2 (Painter Groups)

Group	C. of G.	Red	Black	Yellow	Pur/Vi	White	Brown	Green	Blue	Rose	Gray	Range	Dis.	Transp.	2 Colour
Saburoff	10	13	1	2	-	-	-	2	-	1	-	x 6	2	-	3
2nd Colour[a]	*[2]*	*2*	*1*	-	-	-	-	-	-	-	-	*x 2*			
Thanatos	5	16	1	-	1	-	2	1	1	-	-	x 7	5	1	-
2nd Colour	-	-	-	-	-	-	-	-	-	-	-	*x 0*			
Achilles	36	33	9	7	5	-	3	-	-	-	-	x 6	5	10	1
2nd Colour	*[1]*	*1*	-	-	-	-	-	-	-	-	-	*x 1*			
Woman	9	9	-	-	1	-	-	3	3	-	1	x 6	-	-	13
2nd Colour	*[4]+4*[b]	*1*	-	*1*	*9*	-	-	-	-	-	*1*	*x 5*			
Reed	6	6	2	3	-	1	-	2	-	-	-	x 6	1	-	5
2nd Colour	*[2]*	*5*	-	-	-	-	-	-	-	-	-	*x 1*			
Quadrate	18	7	2	-	3	1	-	1	1	-	-	x 7	3	-	9
2nd Colour	*[6]*	-	-	-	*3*	-	-	-	-	-	-	*x 2*			
Totals	**84**	**84**	**15**	**12**	**10**	**2**	**5**	**9**	**5**	**1**	**1**	x 11	**16**	**11**	**31**
2nd Colours	*[15]*	*9*	*1*	*1*	*15*	-	-	-	-	-	*1*	*x 5*			
	37%	**37%**	**6.5%**	**5%**	**4.5%**	**1%**	**2%**	**4%**	**2%**	**0.5%**	**0.5%**	**228***			

[a] 2nd Colour Totals are not included in percentages in any of the above tables.

[b] The Woman Painter is the only one in this sample to use 'Colour of Ground' as a second colour on garments with an added main colour – the '4' outside square brackets indicates this use.

Group	*C. of G. Garments*	*Red Garments*	*Other Col. Garments*	*Total Garments*	*Total with AddedColour*[c]	*No. Added Colours*
1625-1634	**7**	**7**	**15**	**29**	**22**	**5**
	24%	24%	52%		76%	
1635-1650	**25**	**1**	**11**	**37**	**12**	**5**
	67%	3%	30%		32%	
1st Totals	**32**	**8**	**26**	**66**	**34**	**Av. 5**
%	**48%**	**12%**	**40%**		**52%**	
1651-1673	**13**	**23**	**20**	**56**	**47**	**8**
	23%	41%	36%		84%	
1674-1691	**20**	**29**	**18**	**67**	**48**	**7**
	30%	43%	27%		72%	
1692-1713	**15**	**31**	**21**	**67**	**53**	**8**
	22%	46%	32%		79%	
1714-1737	**22**	**35**	**6**	**63**	**44**	**5**
	35%	56%	9%		69%	
1738-1760	**17**	**41**	**9**	**67**	**52**	**6**
	25%	61%	14%		78%	
1761-1791	**14**	**26**	**10**	**50**	**37**	**6**
	28%	52%	20%		74%	
1792-1821	**25**	**23**	**9**	**57**	**34**	**7**
	44%	40%	16%		60%	
1822-1841	**10**	**13**	**11**	**34**	**24**	**7**
	29%	38%	32%		70%	
2nd Totals	**136**	**221**	**104**	**461**	**339**	**Av. 6.75**
%	**29%**	**48%**	**23%**		**73%**	
Overall Totals	***168***	***229***	***130***	***527***	***373***	***Av. 6.5***
%	***32%***	***43%***	***25%***		***71%***	
Saburoff	**10**	**13**	**6**	**29**	**21**	**5**
	33%	43%	24%		72%	
Thanatos	**5**	**16**	**6**	**27**	**22**	**6**
	18%	59%	23%		81%	
Achilles	**36**	**33**	**24**	**93**	**58**	**5**
	39%	35%	26%		62%	
Woman	**9**	**9**	**8**	**26**	**21**	**6**
	35%	35%	30%		81%	
Reed	**6**	**6**	**8**	**20**	**16**	**5**
	30%	30%	40%		80%	
Quadrate	**18**	**7**	**8**	**33**	**21**	**6**
	54%	21%	25%		64%	
Totals	*84*	*84*	*60*	*228*	*159*	*Av. 5. 5*
	37%	*37%*	*26%*		*70%*	

Group	**C. of G. Garments**	**Red Garments**	**Other Col. Garments**		**Total with Added Colour**	
1625-841	**32%**	**43%**	**25%**		**71%**	
Painters	**37%**	**37%**	**26%**		**70%**	
Overall[d]	33%	41%	25%		70%	

[c] This figure includes 2nd colours on 'C. of G.' garments.

[d] Useful only to assess relative deviation within and between groups.

5.3 Conclusions from Colour Tables

In considering the details of the lekythoi from the A.N.M. it is important to remember that the interior groupings are arbitrary. In terms of the function of this sample as a control group for comparison with the works of individual painters, the main information is the final 'Totals' row of Table **3**, which will be discussed further below. However, despite being arbitrary, the interior divisions are interesting because they demonstrate the existence of a surprisingly uniform pattern of colour use across this wide group of lekythoi. Of course, there are also significant variations.

Tables **1** and **1a** make the differences between the use of colour on lekythoi from these periods clear. Almost half the items depicted on the lekythoi of the first period are drawn in outline, and retain the colour of the white ground. The next most common colour is black, rather than red, and there is an equal incidence of red garments and white ones (white being added or 'second' white). The only other two colours used are purple and brown.[42] Nevertheless, just over half of the items of clothing and textiles shown are depicted using added colour. These twenty-four vases exhibit a six-colour range - the colour of the ground and five added colours. If this seems artistically primitive, the actual lekythoi exhibit a great deal of variety in the use of these colours for garments, and in their combinations, producing very different visual impressions of clothing (one of the main reasons for simplifying their details in this way). Another notable feature of this group is that very little use is made of coloured decoration, either on outline or coloured garments (both instances are borders on *himatia* - red on white and brown on black).[43]

For the lekythoi of the second period, the use of colour is rather different. Nearly three quarters of the items depicted have some added colour, and almost as many (70%) have added colour as their main colour. Almost half of all the garments shown on these lekythoi are red. The colour range is wider, encompassing ten different basic colours in a variety of shades. It is worth noting that the maximum colour range on single lekythoi of this group is six, with five being more common, and that these are also the highest numbers of separate textile items found on single lekythoi of this group. Of course, for this group of lekythoi and its subdivisions, the colour range figures are of lesser significance, since they refer only to a random group of lekythoi, rather than to the colour choices of a single painter as in Table **2**. However, they do provide an indication of a degree of consistency amongst these otherwise unrelated vases, in that the figures for the relationship between the colour of the ground, red, and all other colours (given in Table **3** for each group) demonstrate a remarkable degree of cross-group similarity. In the same way, despite the many differences in style, composition, scene and number of figures between the lekythoi within and across these groups, the total percentages of added colour used are also closely related.

Table **2** follows the same structure, but here the disparities between the groups should be accorded more significance. They reflect different tendencies in the work of each painter which are clear from the descriptions and the lekythoi themselves. We can see for instance that the Woman Painter makes

[42] See p.184. One wonders if the painting method and colours (as well as subject matter) are the basis of period attribution here?
[43] See p.184 and p.199-200

particular use of coloured decoration, even on outline garments, and that the Achilles Painter is almost alone of these painters in depicting transparent garments. The colour range of each painter as shown by these examples of their lekythoi is evenly split between five and six added colours, although each uses a slightly different palette, in differing proportions. Individual colour preferences can be seen, like the Woman Painter's preference for violet bordered outline garments. Aspects like this are part of what make each lekythos, and the styles of the painters distinct, and contribute to the difficulty of making purely visual comparisons.

However, if instead of looking at the painters individually, we treat them as a group, and compare their work as a whole to the control group discussed above, it becomes clear that despite their individual styles, some aspects of the depiction of clothing on these vases share broad similarities. Thus Table **3**: as well as presenting the information of the other tables in more concise and easily comparable form, it also highlights the essential similarities between the depiction of clothing using colour by the *'Catalogue'* lekythoi, and by the work of the individual painters. Most noticeably, the total proportion of garments given added colour is almost identical, and the proportion of colour use by each painter falls well within the range established by the control group. Similarly, the use of added colours other than red as the main colour of garments is also closely comparable for both groups. The proportion of red garments to 'colour of ground,' equal in the lekythoi by specific painters, is weighted in favor of red in the *'Catalogue'* lekythoi, reversed in the lekythoi of the first period.

It is also apparent that if one compares the control group as a whole to the painters sample, patterns in colour use extend beyond the relationship between 'colour of ground' and 'red' garments. For the control group, garments are coloured in the following proportions: red (43%) 'colour of ground' (32%) black (8%) yellow (4%) purple (4%) blue (3%) brown (3%) white (2%) green (1%). For the painter sample, the proportions are: red (37%) 'colour of ground' (37%) black (6.5%) yellow (5%) purple (4.5%) green (4%) blue (2%) brown (2%) white (1%) rose (0.5%) grey (0.5%). Although the figures are different, the basic order is the same.[44]

Overall, I find it remarkable that the use of colour to depict clothing is so similar, having expected there to be great, and apparently random, disparities between the work of different painters, and between the various lekythoi of the A.N.M. The fact that there are patterns of colour use in Collignon's selection, and that the painters, as a group, conform to them to a high degree, suggests strongly to me that colour choice in depicting clothing on lekythoi was **not** a purely personal decision for the painters who decorated them. That this sample, in which both groups are essentially random, displays such a degree of concurrence, suggests that as well as reflecting, in the details of their colour use, the distinctive styles, preferences and materials of their decorators, these lekythoi also reflect, with some accuracy, the pattern of colour use prevalent in dress.

Table **3** shows what I believe to be the essential aspects of this reflection, the approximate percentage of garments shown with added colour, and the balance between garments of neutral, red, and

other colours. At this point it seems necessary to emphasise that this is not necessarily the depiction of the actual colour of actual garments. As discussed above, I am concerned with the **proportion** of coloured garments, and the **range** of colours used for garments. Table 3 provides a good indication that lekythoi overall depict a reasonably uniform proportion of coloured to neutral garments despite their differences of painter, scene and date.

Why red should be the most common colour for textiles on the lekythoi of the second period, I do not know, but it is quite clearly so. The most obvious connection would be with the ubiquitous red colour of both red and black figure, but not only is the technique different, the variety of reds used on lekythoi should obviate any close connection with the red of other pottery. Possibly there is no more to it than the availability and ease of application of a range of red pigments, some of which could have been very close to the reds produced by dyeing. [45] However, the predominance of red seems to me less important than the fact that, in all cases shown in these tables, garments of added colour are more common than those of neutral colour.

With regard to a neutral colour of clothing, the use of 'second white' both for women's skin in the early periods, and for clothing in these periods and by the specific painters, indicates strongly that the 'colour of the ground' garments were not conceptualised by their painters as being 'white.'[46] This indication is supported by the practical difficulties of achieving and maintaining a 'pure' white colour for natural fibre textiles.[47] These lekythoi are therefore also valuable because their contrast of 'neutral' clothing with clothing of 'added colour' emphasises the distinction between this and the contrast of 'white' clothing with 'coloured' clothing.[48] Thus, the use of added colour to enliven the neutral colour of depicted garments, and the use of garments painted entirely in added colours to enliven the ensembles of the painted figures, might not unreasonably be held to parallel the use of dyes in conjunction with fabrics of more naturally coloured fibres.

To sum up: on these lekythoi overall, c. 70% of all the garments depicted have added colour. This added colour covers a range of ten basic hues, with multiple variants of shade, tone and intensity. Moreover, since the proportions of specific colour use remain largely constant across the entire group, it seems unlikely that these can be wholly attributed to artistic license. Were the use of colour for painted garments a matter for the free choice of the decorator, and not linked in some way to the use of colour for fabric and clothing, we should hardly expect this to be the case.

It is not my contention that the Woman Painter's preference for painting garments with violet borders is evidence for a fashion for violet borders on clothing at the time these lekythoi were painted.[49] It is my contention that in painting four fifths of his garments using added colours, he was reflecting the

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[44] With the exception of green. Possibly attributable partly to pigment availability, but surely not entirely.
[45] See n.29 on the use of dyestuffs to make lake pigments
[46] 'Of the ground' (after Collignon & Couve) seems more accurate than 'outline' which could describe most of the garments, coloured or not. See above for transparency and pigment, p.183
[47] See p.210-212 & p.270-72 etc.
[48] See p.127ff

general appearance of dress, as were the decorators of these lekythoi overall. In short, these lekythoi provide no support for the idea that ancient Greek dress was predominantly white or colourless. The use of colour to depict garments on lekythoi is not only aesthetically pleasing, it cannot with any justification be compared to the kind of 'colouring in' suggested above, since such a use of colour, unrelated to the reality apprehended by these painters, could not produce such consistent results. The use of a six or seven colour range by each painter, and of a maximum six colour range on any single lekythos should not be seen as indication of a lack of concern with depicting colour, or as technically or artistically primitive. In fact it compares rather well to the fourteen colour palette employed in medieval fresco painting, since lekythoi were restricted, due both to size and shape, in the variety and complexity of the figures which could be successfully depicted.[50]

6. Colour in Specific Garment Types

The final section of this chapter is devoted to analysing the information from these lekythoi in more detail, since it has been established that the colours of clothing they depict did enjoy some relationship with actual dress. There are many aspects which could potentially be considered, but I have chosen to concentrate on two which relate to the material of previous chapters: the use of colour to depict inner and outer garments, which can be compared to the analysis of the described colours of inner and outer garments from Brauron, and the use of colour to depict garments worn by men and women, a contrasting type of information to that given by either group of inscriptions.[51] The distinctions between the sample groups have been maintained throughout so that they can be checked against one another, and again it will be seen that despite the natural disparities between the sub-groups, overall these lekythoi adhere to common patterns.

6.1 Introduction to Garment Tables

The first point to note is that these tables use the same and sub-groups as the Colour Tables above. Table 4 is fairly self-explanatory – the columns divide the garments into inner (*chitones*, etc.) outer (*himatia*, other cloaks) and miscellaneous (boots, headgear, etc.) – detailing the proportion in each sub-group and group which have added colour. Sub-groups cover two rows, the first giving figures, the second percentages for comparison. Tables 5a-c contain rather more complex data. Under the main headings of 'Female' / 'Male,' they give the number of figures (nude male figures are separately specified) and garments, followed by the proportion in each group which have added colour, are 'colour of ground,' or have disappeared. Each sub-group again covers two rows, but the 'Garments' column gives the average number of garments per figure. The totals are self-explanatory, and are restated separately in 5c for comparison.

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[49] cf. p.148-51
[50] Gage (1993:15) See p.175-76
[51] See p.97-100 and p.256-66

6.2: Table 4 Inner / Outer Garments

Group	Inner Garments		Outer Garments		Miscellaneous	
	Added Colour	**C. of G.**	**Added Colour**	**C. of G.**	**Added Colour**	**C. of G.**
1st Period Totals	8	29	17	3	12	0
%	**22%**	**78%**	**85%**	**15%**	**100%**	**0%**
1651-1673	13	8	27	2	10	0
	52%		*93%*		*100%*	
1674-1691	10	11	26	5	18	4
	48%		*84%*		*82%*	
1692-1713	9	7	22	5	23	2
	56%		*81%*		*92%*	
1714-1737	8	14	21	6	14	2
	36%		*78%*		*87%*	
1738-1760	12	10	21	3	20	3
	54%		*87%*		*87%*	
1761-1791	2	7	22	5	14	1
	22%		*82%*		*93%*	
1792-1821	9	12	22	9	7	2
	43%		*71%*		*78%*	
1822-1841	8	6	13	3	5	1
	57%		*81%*		*83%*	
2nd Period Totals	71	75	174	38	111	15
%	**49%**	**51%**	**82%**	**18%**	**88%**	**12%**
A.N.M. Totals	79	104	191	41	123	15
%	**43%**	**57%**	**82%**	**18%**	**89%**	**11%**
Saburoff	4	4	11	2	4	2
	50%		*85%*		*67%*	
Thanatos	3	2	11	1	7	2
	60%		*92%*		*78%*	
Achilles	15	28	29	0	15	9
	35%		*100%*		*62%*	
Woman	11	6	9	0	2	0
	65%		*100%*		*100%*	
Reed	9	1	3	0	4	3
	90%		*100%*		*57%*	
Quadrate	1	8	11	2	9	2
	11%		*85%*		*82%*	
Painters Totals	43	40	74	5	41	18
%	**52%**	**48%**	**94%**	**6%**	**69%**	**31%**
Overall	46%	54%	85%	15%	83%	17%

6.3 Conclusions from 6.2

The table shows a reasonable degree of internal consistency within the main groups. The disparities between the painter sub-groups are obviously greater, but should be largely attributed to differences of style and figure preference.[52] Comparison of the main groups indicates that for inner garments, the proportions shown with and without added colour agree at around half-and-half. For outer (82-94%) and miscellaneous garments (89-69%) the majority in both groups have added colour. Again, the 1st Period sub-group is the most divergent, but only in terms of inner garments.[53] This should probably be attributed to the fact that most of the figures in this group are female.[54]

The results in this table are interesting for two reasons. Firstly, they provide further confirmation that the individual variations between the images on these lekythoi nevertheless conform overall to general patterns (which are not obvious from comparisons of the individual images themselves, and so should not be seen as artistic convention) that seem likely to reflect dress habits. This table indicates that such patterns exist for the depiction of coloured inner and outer garments as well as overall colour use. Secondly, and following from this, the figures allow us to make some suggestions about the distinctions in colour use (in art and life) which applied to these types of garment. The most obvious of these is that added colour was more frequently applied to outer garments.[55] Inner garments might equally be of neutral or added colour, while the colour of accessories (the category which shows the most extreme variation in the table) would seem to have been more optional.

[52] c.f Table5b below.
[53] c.f. Table3, re. total added colour and neutral/red.
[54] c.f. Table5. Female figures often wear only inner garments, which this table indicates are less likely to be coloured than the outer garments which male figures generally wear.
[55] Supported by technical considerations of dyeing – such garments would mostly have been wool, which is both warmer and easier to dye effectively. See p.209, 212 and p.148-51

6.4: Table 5b Female/Male Garments with Added Colour (Painter Groups)

	Female					Male					
Group	**Figures**	**Garments**	**Added Colour**	**C. of G.**	**Dis.**	**Figures**	**Nude**	**Garments**	**Added Colour**	**C. of G.**	**Dis.**
Saburoff	8	12	6	4	2	13	1	18	14	4	-
		1.50	*50%*	*33%*	*17%*			*1.38*	*78%*	*22%*	
Thanatos	9	14	7	3	4	11	1	13	11	2	-
		1.55	*50%*	*21%*	*29%*			*1.18*	*85%*	*15%*	
Achilles	43	73	44	28	1	8	1	13	8	5	-
		1.70	*60%*	*38%*	*2%*			*1.62*	*62%*	*38%*	
Woman	15	26	20	6	-	1	-	1	1	0	-
		1.73	*77%*	*23%*				*1*	*100%*		
Reed	5	11	8	3	-	6	-	9	7	1	1
		2.20	*73%*	*27%*				*1.5*	*78%*	*11%*	*11%*
Quadrate	8	15	7	6	2	9	-	15	8	6	1
		1.87	*47%*	*40%*	*13%*			*1.67*	*53%*	*40%*	*7%*
Painters	**88**	**151**	**92**	**50**	**9**	**48**	**3**	**69**	**49**	**18**	**2**
%		***1.72***	***61%***	***33%***	***6%***			***1.44***	***71%***	***26%***	***3%***

Table 5c Female/Male Garments with Added Colour: Totals

	Female					Male					
Group	**Figures**	**Garments**	**Added Colour**	**C. of G.**	**Dis.**	**Figures**	**Nude**	**Garments**	**Added Colour**	**C. of G.**	**Dis.**
A.N.M. Total	194	275	56%	39%	4%	158	5	196	73%	27%	0%
Painters	88	151	61%	33%	6%	48	3	69	71%	26%	3%
Overall		1.51	58%	37%	5%			1.29	72%	27%	1%

6.4: Table 5a Female/Male Garments with Added Colour (1st & 2nd Periods)

	Female					Male					
Group	**Figures**	**Garments**	**Added Colour**	**C. of G.**	**Dis.**	**Figures**	**Nude**	**Garments**	**Added Colour**	**C. of G.**	**Dis.**
1st Period	**38**	**60**	**28**	**32**	-	**2**	-	**2**	**2**	**0**	-
%		***1.58***	***47%***	***53%***				***1***	***100%***	-	-
1651-1673	17	27	18	9	-	26	-	31	28	3	-
		1.59	*67%*	*33%*				*1.19*	*90%*	*10%*	
1674-1691	21	35	24	11	-	18	-	23	15	8	-
		1.67	*69%*	*31%*				*1.28*	*65%*	*35%*	
1692-1713	18	25	16	9	-	19	1	27	22	5	-
		1.39	*64%*	*36%*				*1.42*	*82%*	*18%*	
1714-1737	20	28	16	12	-	20	1	25	16	9	-
		1.40	*57%*	*43%*				*1.25*	*64%*	*36%*	
1738-1760	19	23	15	8	-	20	1	28	20	8	-
		1.21	*65%*	*35%*				*1.40*	*71%*	*29%*	
1761-1791	19	23	8	9	6	19	2	21	17	4	-
		1.21	*35%*	*39%*	*26%*			*1.10*	*81%*	*19%*	
1792-1821	23	30	16	12	2	26	-	30	17	13	-
		1.30	*53%*	*40%*	*7%*			*1.15*	*57%*	*43%*	
1822-1841	19	24	14	7	3	8	-	9	6	3	-
		1.26	*58%*	*29%*	*13%*			*1.12*	*67%*	*33%*	
2nd Period	**156**	**215**	**127**	**77**	**11**	**156**	**5**	**194**	**141**	**53**	-
%		***1.38***	***59%***	***36%***	***5%***			***1.24***	***73%***	***27%***	-

6.5 Conclusions from 6.4

The internal consistency between sub-groups in these tables is again reasonable, especially taking account of the impact of 'disappeared' female garments.[56] The individual painters unsurprisingly show more variation, particularly in terms of figure preference (for the Achilles and Woman Painters) while this sample also depicts figures of both sexes with more garments.[57] Comparing the main groups, there is once more evidence of a surprising degree of consistency. The surviving depictions of garments show that male figures more frequently wear garments with added colour (72% vs. 27%) than female (58% vs. 37%). However, the higher proportion of disappeared garments from female figures casts doubt on the degree of this difference. It seems more likely that the garments which have entirely disappeared (as opposed to losing their colour) were those which were painted entirely in fugitive pigments, after firing.[58]

Given this doubt, the main conclusion to be drawn from the use of colour for male and female garments, should perhaps be that male garments were certainly not **less** likely to be coloured than female. This is important, given the concentration on women's dress in the inscriptional evidence that has so far been used for colour. In fact, lekythoi provide particularly good evidence for comparing male and female dress, since male and female figures are depicted on the same level.[59] In literature, where one depends on salience, it is never possible to be sure why dress has, or has not, been specifically described, and a wide variety of social and literary conventions need to be considered.

6.6 Comparisons of Evidence

It is interesting to compare the results obtained from these two analyses of the figures depicted on lekythoi with those from the descriptions in the Brauron catalogue, which also discusses the inner/outer distinction.[60] On the one hand, the overall proportions of marked/added to unmarked/neutral colour (61% for the descriptions of female garments from Brauron, see Ch.3, Sect.4.2, as against 58% for female garments on these lekythoi) are remarkably similar. So too are the results for inner garments with marked/added colour (48% from Brauron, see App.3, Section 2, and an average of 46% on these lekythoi). Indeed, the correspondences between the results from these two entirely independent and very different sources support the contention that both actually reflect the salience of colour in use for clothing (as well as in representation for lekythoi).

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[56] It should be noted that 'disappeared' garments are rarely described for male figures, and it is possible that this is because we find the nudity of male figures in Greek art of this period unsurprising.

[57] Recognised painters are generally those of greater skill, while the control group contains all levels. The 1st Period group also shows a preponderance of female figures.

[58] To establish this would require examination of the ground of the individual pot, to see if the erosion was sufficient to also remove fired outlines.

[59] See above, p.178 re. internal consistency of images – male and female must be equally depicted. cf. description of male garments, p.151, n.17

[60] See p.148-51

On the other hand, the two sources are not universally comparable. The results from Brauron include pattern as a kind of colour, as lekythoi rarely do.[61] (However, the agreements above could be argued to confirm that pattern was indeed **conceptualised** as colour).[62] And, the results (for inner/outer garments) from the lekythoi include male garments, which are inconsiderable at Brauron.[63] This may explain why, although the proportion of outer garments with marked colour from Brauron (67%) is indeed higher than for inner garments, the difference is of a lesser extent than as depicted on lekythoi.[64] It may also explain why outer garments are under-represented in the descriptions from Brauron.[65] The information from these lekythoi also applies a useful corrective to the impression of male garments given by those descriptions (none of the four male garments have described colour or decoration).[66]

7. Conclusions

The research on which this chapter is based was essentially a process of testing an hypothesis. I had accumulated a significant amount of data about colour use on lekythoi, but it seemed apparent that this was only information about art, and not about clothing. It could only be considered relevant to clothing if there was an underlying pattern in how artists used colour to depict clothing, and further, if that pattern were not explicitly visible on individual lekythoi.[67] I did not set out to find a pattern, indeed, I did not expect that there would be one. (The visual impression provided by comparing the images on many separate lekythoi is that most clothing is 'colour of the ground' and that colour is used simply for variety). I set out to see what there was, and to reduce the data to a manageable form.

The basis of the arguments used in this chapter is that, while individual painting styles and colour preferences are easily visible in the works of single painters, when their lekythoi are considered as a group, and compared to a control sample (independently selected, and reduced using exactly the same data criteria) common features of colour use (proportions of added to neutral colour, of red garments, and of relative colour use) emerge. These common features exist despite the great disparities in style, competence, scene and figure choice, between individual lekythoi. They are not apparent from the consideration of individual lekythoi, but emerge only from considering large numbers of **figures**. Nevertheless, random groupings of lekythoi demonstrate not only overall but internal consistency. And further, similar patterns emerge from separate analyses (the colour use analysis, Tables 1-3 was

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[61] See above for the practical reasons. Lekythoi depicting patterns are asterisked in the List p.202-203

[62] cf. Miller (1997:153-87 & figs.) on fashions, re. the relative dates of the lekythoi and catalogues.

[63] See n.59 above, but also n.54 on male figures and outer garments.

[64] See p.148-51 cf. p.194-95

[65] See n.54, cf. p.148-51

[66] cf. p.199 (72%). Also cf. drama references to colour of: female garments (comedy, 4 + 6 worn by men; tragedy, 15) male garments (comedy, 8, tragedy, 11) garments of both sexes (5 in each) divine garments (comedy, 1, tragedy, 11). In the absence of other evidence, these references might therefore be taken to mean that colour was more frequently worn by women, when they are more likely (in light of the above discussions) to indicate that it was more frequently **significant**.

undertaken first, while the inner/outer garments, and male/female garments analyses were later, separate analyses, linked only by their common basis in the descriptions, which are simply a summary of the information provided by other commentators).

I hold my hypothesis to have been demonstrated. The figures on these lekythoi are depicted in a way that reflects wider dress, not the arbitrary choices of their decorators. But this does not mean that individual lekythoi are accurate reflections in this way. It means only that there is some meaning in the depiction of coloured clothing. I have drawn some conclusions about this meaning: that the primary distinction was between clothing of neutral and added colour: that added colour was a very common feature of clothing, and was more usual for outer garments than inner: that male figures wear fewer garments, but that they are more often outer garments, and of added colour.[68] I have resisted the temptation to link the use of specific colours in depiction to specific colours used for clothing, but have noted that red is predominant to a surprising extent in depiction.

The underlying contention of this thesis is that evidence for colour in clothing must be taken from a variety of types of sources, and that the degree of agreement between these sources must be considered in light of their specific contexts. The evidence from lekythoi is interesting because it is, unlike most of the surviving evidence about Greek colour, non-verbal. But this does not mean that it is uncomplicated. Nor does it mean that it can be considered in isolation. The conclusions summarised above are interesting mainly in the extent to which they confirm or contradict those drawn from other types of evidence. Section 6.6 has begun this process of comparison with the most closely comparable body of evidence.[69] The next chapter will also (as this chapter, and Ch.3 have done) focus on the relationship between marked and unmarked colour, and on the nature of the latter, this time in the context of production. It will also consider the nature of neutral colour as depicted on these lekythoi, given that it seems clear that this cannote be interpreted as white.[70] Specifically, it will consider (given that there is now confirmation that a high proportion of Greek garments possessed colour that was marked/remarkable in **some** evidentiary contexts) the basis of the restricted range of culturally salient colours found in others.

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[67] If it were, then it would have to be considered conventional. It is certainly possible to compare individual lekythoi and find visible patterns of colour use for clothing – the limited iconographic range makes such patterns inevitable.

[68] In retrospect, it would have been desirable to separate the inner/outer analysis according to male and female garments. But there is a limit to the number of times one can count these things and retain sanity, so this is relegated to a future study.

[69] See above, Section 1

[70] See p.127, p.210 and p.271f

8. List of Lekythoi

Saburoff Painter

A.N.M. 1815

A.N.M. 1926*

A.N.M. 2018

A.N.M. 2019

Ashmolean 365*

Ashmolean 366

Berlin F.2448

Berlin F.2455*

British Museum D.62

Thanatos Painter

A.N.M. 1797

A.N.M. 1822

Berlin Inv.3160

Berlin Inv.3963

Boston 00.359

Boston 96.721

British Museum D.57

British Museum D.58

British Museum D.60

Munich Jahn. 209

Achilles Painter

A.N.M. 1818

A.N.M. 1821

A.N.M. 1823

A.N.M. 1923

A.N.M. 1963

A.N.M. 12440

A.N.M. 12444

A.N.M. 12784

A.N.M. 12786

A.N.M. 12788

A.N.M. 12795

Berlin F.2443

Berlin Inv. 3970

Boston 08.368

Boston 13.187

Boston 13.201

Boston 93.106

Brussels C. A.8

British Museum D. 48

British Museum D. 51

British Museum D. 53

British Museum D. 54

British Museum D. 55

N.Y. Met. Mus. 07.286.42

N.Y. Met. Mus. 08.258.17

N.Y. Met. Mus. 08.258.18

Worcester 1900.65

Woman Painter

A.N.M. 1955* [Chitonion]

A.N.M. 1956* [Ch]

Berlin Inv. 3369* [Ch]

Berlin Inv. 3372*

Brussels C. A. 1168

British Museum D. 70* [Ch]

Reed Painter

A.N.M. 1759

A.N.M. 1999

Brussels C. A.124

British Museum D. 61*

Rhode Island 25.082*

Quadrate Painter

A.N.M. 1936*

A.N.M. 1957*

Berlin F. 2452

Brussels C. A. 903

Brussels C. A. 1688

N.Y. Met. Mus. GR618

N.Y. Met. Mus. 06.121.133

Collignon & Couve Catalogue Nos. (1st Period)

1625	1632	1639	1646
1626	1633*	1640	1647
1627	1634	1641	1648
1628	1635*	1642	1649
1629	1636	1643	1650
1630	1637	1644	
1631	1638	1645	

Collignon & Couve Catalogue Nos. (2nd Period)

1651	1673*	1691	1712	1730*	1747	1763	1782	1802	1819*	1839
1652	1674*	1692*	1713	1731	1748	1764	1783*	1803	1820	1840
1655	1675*	1695	1714	1733	1749	1765	1785	1804*	1821	1841
1657*	1676	1696*	1715	1734	1750	1766	1786	1805	1822	
1658	1677	1697*	1716	1735*	1751	1767	1787	1806*	1823	
1659	1678	1698	1717*	1736	1752*	1768	1789	1807	1826	
1661	1679*	1699*	1718*	1737*	1753	1769	1790	1808*	1828	
1662*	1680	1701	1719*	1738*	1754	1770*	1791	1809	1829	
1663	1681	1704	1720	1739	1755	1772	1792	1810	1830	
1664*	1682	1705	1722	1740	1756	1774	1794	1811	1831	
1665	1683	1706	1723	1741	1757	1775	1795	1813	1832	
1666	1686	1707	1725	1742	1758*	1776	1796	1814	1834	
1667	1687*	1708	1726	1743	1759	1778	1797	1815	1835	
1669*	1688	1709	1727*	1744	1760	1779	1798*	1816	1836	
1670*	1689	1710	1728	1745	1761	1780*	1800	1817	1837	
1671*	1690	1711	1729	1746	1762	1781	1801	1818	1838	

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1. Preface

No historical study of colour in art or material culture can be complete unless it takes cognisance of the practical issues surrounding its production. The purpose of this chapter is to examine the processes through which colour was achieved in textiles, in order to understand salience in the production of colour: in terms of both availability (ease of obtaining stuffs and of application) and results (colour qualities and fastness). Understanding such salience is surely a necessary pre-requisite for considering why particular colour-groups were prioritised by the Greeks in representing clothing (as well as in use) and is likely to be of even greater importance in considering the significance of colour.

Therefore, the function of this chapter is to investigate the practical considerations which applied to the different 'kinds of colour' that have been found in the evidence. As such, it is concerned not only with technical information, but also refers back to the first two chapters in considering the various 'qualities' of colour and their relative salience. Although this chapter will naturally view colour primarily as the result of technical processes, even as such it cannot be divorced from conceptualisation and categorisation: imagining colour is the first step towards achieving it.

1.1 Introduction: Dyeing and Colour

One of the broad aims of this thesis is to contribute to the wider understanding of Greek colour-terms, categories and symbolism by studying them in relation to a particular class of material referents, whose colour was, by its very nature, a more or less deliberate result of human agency. Clothing and textiles were not only amongst the earliest artefacts to receive artificially created colour.[1] They were and are also, without doubt, among the most ubiquitous, and, it may be argued, socially significant, examples of such created colour.[2]

Of course, the colours of all human artefacts, from the paintings of Rembrandt to the simplest stone hand axe, are created, since they are the result of the selection and treatment of materials by the maker. However, if we consider the primary raw materials of most pre-industrial, non-textile, artefacts – wood, stone, metal, clay and bone – it becomes apparent that colour is rarely an uncomplicated consideration. Although there exist a very wide variety of colours as properties of various types of wood, stone, metal ore and clay, these colours are in almost every case integrally linked to other properties of the material – relative hardness, durability, flexibility, and so on - which must eclipse colour as selection criteria.

Aside from selection of materials then, specific colours for artefacts must be achieved through artificial colour change. In general, such alteration may be achieved in two ways; chemical change, or the application of surface treatments. In terms of chemical change, alloying of metals changes their colour, as the mixture of different naturally occurring clays, with each other or with additives, alters their colour after firing. The firing process itself can be varied to produce differing colours from the same material, as is also the case with the tempering of metals. Yet, again, these

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[1] 'Artificial' has come to refer to synthetic materials as opposed to those which are organic and/or naturally occurring. But I use it here in the sense of 'the result of artifice.'

[2] Barber (1991) See n.11

processes of chemical change produce alteration in the other properties of the material, as well as its colour, so that the colour of the finished artefact, although created, cannot be arbitrarily selected. Stone, wood and bone can be dyed or stained, but their density means that these processes of chemical change often amount to a surface treatment, rather than integral colour change.

If we consider other surface treatments, such as polishing and painting, it is apparent that although they may be applied to any raw material and alter its colour, they have specific limits. Polishing produces only slight change of hue, although it radically alters reflective properties. However, its appropinquity is dependent on other properties of the material, and crucially on the artefact's function. The colours produced by glazing are limited as much by the firing temperature required by the base clay, as by the availability of pigments, or the choice of the maker. Painting, which is most often in the modern world automatically conceived of as the basic paradigm of artificial colour change, is dependent on the nature of the binding medium for its permanence.[3] In short, surface treatments are vulnerable to wear, and so cannot be used to change the colour of raw materials without consideration of the artefact's function.

So far, so obvious, but the consequence of the above considerations is that, generally speaking, the selection of materials, or their alteration through chemical change or surface treatment, *for the particular purpose of creating specific colours* is only appropriate to artefacts whose function is decorative (and even for such objects, durability is a consideration).[4] For functional artefacts of everyday use, colour can only be considered as subsidiary to the other properties of the material, and to the function of the object. This is why colour is generally only studied as a cultural property of material artefacts in relation to *objets d'art*. And even when it is so studied, its cultural significance must be seen in relation to the availability and properties of the techniques and materials used to create it, and not in the abstract.[5]

The purpose of the above discussion has been to emphasise that clothing and textiles are, in terms of colour, unique as a species of material artefacts. Textiles are composed of fibres of low density (compared to wood, stone, or bone), which are themselves structured into fabric, so that the dyeing process does amount to an integral chemical change. A wide variety of colours can be produced without major or dependent alteration of the other physical properties of the fibre. The structured, additive nature of the process of creating textile from fibre also allows the addition of colour in the form of abstract pattern or stylised representation, again in a form which does not necessarily alter the physical properties of the finished cloth, and which is not vulnerable to wear as are the surface treatments described above. The producer of a textile may select and alter the colour of the finished artefact with the same or greater freedom as a painter of pictures, or a painter or maker of decorative objects, in accordance with cultural or aesthetic considerations, and subject only to the

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[3] See p.182-84

[4] See p.180-82

[5] Perhaps the best known example of the importance of such considerations is the revolution in painting which occurred during the Renaissance, for which the new and radically different ways of seeing, representing and communicating the world cannot be divorced from the invention of pigments which were rendered slow drying, readily mixable and relatively chemically stable by their oil binding medium. See p.183, n.28 & 29 and generally, Gage (1993) also (1998:53-4)

same constraints. And yet clothing and textiles are not *objets d'art*. They are artefacts of everyday use, ubiquitous, and integral to their wearers' interactions with other individuals and with their society.[6] Clothing is of course, even without taking colour into account, a uniquely communicative form of material culture. Previous chapters have considered the colour of clothing as it is **communicated** by language – the function of this chapter is to consider how colour was **produced** in clothing and textiles in the Greek world.

It should be emphasised from the start, however, that although it is entirely possible to study the archaeology, history, botany and chemistry of natural dyeing without significant reference to the colours that various processes achieved, this chapter specifically intends to consider dyeing, and other means of creating colour in textiles, from the perspective of the visible colours that were produced, and the cultural salience accorded to them in the various sources examined by this thesis. This is not to say that we will be able to state: 'this Greek term refers to a colour produced by plant x, and the colour achieved looked like this.'[7] Nor will this chapter focus on the archaeological evidence for dyeing, which tends to emphasise the question of whether or not it was an 'industrial' process.[8] Rather, it will consider the various places of dyeing and colouring processes in the production of clothing, the various techniques and materials required for dyeing, how these affected the availability of different colour groups and qualities, and how such considerations, in addition to trade, interacted with more general aspects of textile production to encourage the salience of particular colours.[9]

2. The Dye Palette

It might seem natural to begin such an enterprise by considering what colours were available to ancient Greek dyers. But in fact, if one considers the total range of dyestuffs available; indigenous plants and materials, cultigens, imported dyestuffs, and the possibility of importing dyed textiles; then it should be admitted that a functionally infinite range of shades could be achieved in clothing. Of course, there are some hues which can now be achieved with aniline and other chemically synthesised dyes which were not available to ancient natural dyers, but in truth, the advantages of synthetic dyeing over natural lie more in the sphere of standardisation (of production, technique of application, fastness, and produced shade) than of range.[10] Taken overall, and ignoring for the moment other considerations, the palette of dyes available to dyers in ancient Europe and the Middle East was not limited in any significant way in terms of the range of potential colours themselves. And it should always be remembered that, despite the dearth of surviving detailed information about Greek dye

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[6] See p.256-66

[7] In fact, this seems not to be a possibility for natural dyes in any context, since plant x may produce a wide variety of colours using different techniques, according to the age of the dyestuff, variations in the individual plants' growing seasons, and so on. See below, p.210

[8] Monaghan, M. 'The Cost of Colours in Hellenistic Greece' Paper delivered at Edinburgh 2001

[9] This chapter does not make a detailed study of trade, for reasons of space and complexity. See n.8 and Casson (1989)

[10] Safflower yellows are particularly light fugitive: Goodwin (1982:59) Timar-Balaszy (1998:70) Barber (1991:232-3). Woad & indigo blues are particularly wear-sensitive: Timar-Balaszy (1998:70-79) Goodwin (1982:76-84) Barber (1991:234-5) Forbes (1956:112) Lucas & Harris (1962:151) Brunello (1968:14). Fastness is now generally equated with washfastness, see p.227 and Chambers (1954) sv. 'dyeing'

recipes and techniques (which is without doubt a result of the uses of literacy, and of the processes by which extant texts have survived) Greek dyers did not stand at the beginning of a process of experimentation with, and transmission of knowledge about, dye-stuffs and process, but rather several millennia into it.[11] It is for this reason that choice – and therefore salience – must be considered.

Nevertheless, within the total palette theoretically available to ancient Greek natural dyers, there were various significant distinctions. The palette of reliably fast dyes was limited, and can be further subdivided into light, wash, and wear-fast dyes. The palette of dyes which could be applied to linen was more limited than for wool.[12] Some dyes required complex and sensitive preparations, others did not. The palette of dyes which could be applied without mordants was limited, as was that which could be achieved with the more commonly available mordants, while availability of dyestuffs limited the palettes open to individual dyers in different areas.[13] And in terms of final effect, the palette of vivid colours was much more limited than the range of muted or dull shades.[14]

It should be evident that all of the above limitations would have interacted in complex ways to produce the actual range of colours available for clothing in different contexts. It should also be clear why it is much easier to approach the subject of ancient dyeing from the perspectives of technique or production context than colour. It is perhaps for such reasons, as well as the undoubted symbolic significance of the resultant colours, that murex-purple dyeing – which requires expert pre-treatment, is extensively discussed in terms of economic significance by ancient literature, and seems to have been largely restricted to specialist centres, leaving durable remains for archaeology – has been so enthusiastically studied.[15] But, purple was not the only colour. If we are to successfully consider the others, it is necessary to make some attempt to cut through the Gordian knot of complex considerations outlined above.

One way to do so is to consider each dyestuff and the colours it might produce from two distinct perspectives: availability and result. Under availability, one would consider the origin and production of the raw dyestuff, the preparation it required before being applied to a textile, the range of textiles to which it could be successfully applied, and the range of different hues and shades it

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[11] Ancient mordant dyeing: Egypt; Linen 2350BC. Barber (1991:237) Linen, 12th Dynasty, Heubner (1909:226) Tutankhamun's tomb linens, Pfister (1937:210-1) New Kingdom, Lucas & Harris (1962:esp.54). Near East: Mohenjo Daro 2000BC. Hofenk de Graaf (1972:12) Tell beit Mirsim 7th C.BC. Albright (1941-3:57-9) Armenia, Verkovskaja (1955:67-8), Assyria, Campbell-Thompson (1934:776-8, 780-4) Uruk, Oppenheim (1967:237, 243). Europe: Hallstatt, Hundt (1959:85) Greece, Ventris & Chadwick (1973:174, 422) Godart (1979:456, n.25). Generally, Barber (1991: esp. 237-8)

[12] Timar-Balaszy (1998:72-3) Barber (1991:236)

[13] See Key, p.218

[14] Tables 2 & 3, p.223f

[15] See p.229 and on dyeing and methods particularly: Timar-Balaszy (1998:74, 75, 119) Forbes (1956:117-9, 120) Barber (1991:228-30). Dye-works: Middle Minoan II & III, Bosanquet (1902-3:276-7; 1904:321) & Reese (1980:81-2) Coldstream & Huxley (1973:367). Thera 1500 BC, Doumas (1983:117). Ugarit, 15th-13th C. BC. Schaeffer (1951:188-9). New Kingdom, Bruin (1967:296) Palestine, Barber (1991:229). Phoenician sites, Robinson (1969:24) Reese (1980:82-3). Crete, 4th C.BC. Bosanquet (1902-3:276) Hdt.4.151.2, etc. See also n.43 below, and Lutz (1923:88-90) Pliny *NH* 21.45-6;9.125-41. Strabo 16.2.23

could produce.[16] Under result, one would consider the relative fastness of the shade produced, and its visual characteristics (light or dark, saturation, bright or dull).[17]

Before going on to consider individual dyestuffs and colours in terms of these basic divisions, it is necessary to outline the essential practical considerations which apply to producing colour in textiles using natural dyes. On the one hand, dyes can be applied to fibres at different stages in the process of textile production, on the other, dyes must be applied using a limited range of general techniques. Rather than reiterating these in the discussion of individual dyestuffs, it seems worth outlining them at the start.

2.1 Dyeing and Colouring Processes in Clothing Production:

Sometimes, the best place to start is at the beginning: in this case, it seems worth considering a very brief summary of the processes by which the main raw materials of Greek textile production – wool and flax – were transformed into cloth. It will become apparent that colouring processes could intersect with the basic process of textile production at a variety of points depending on the nature and intended use of the finished cloth.

Inevitably, the first step in this process was the cultivation of the raw materials: growing flax, and breeding, and obtaining wool from, sheep. Even at this early stage, we must consider colour, since the characteristic pure white fleece of modern sheep is the result of long centuries of selective breeding, and seems likely to have become standard only relatively recently (providing as it does a uniform base for dyeing in bulk).[18] Contemporary examples of earlier breeds show a much wider variety of fleece colour, and this is also attested for Antiquity.[19] Unprocessed wool might therefore be various shades of black, grey, brown, chestnut or white. Flax too appears to have had a certain, but much lesser, degree of colour variation between different local varieties and growing conditions. Both wool and flax of standard quality could be readily produced on a local domestic scale, although higher quantities and qualities of both tended to be particular specialities of various areas (requiring selective breeding and ideal growing conditions respectively).[20]

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[16] Table 1, p.220-22

[17] It might seem strange that hue should not be the primary consideration under result, but it seems that in fact the hue produced by a dyestuff is generally affected as much by the process used to dye with it. A red hue, for instance, can be produced from a particularly wide range of natural dyestuffs, but the resulting shades vary a great deal in terms of their resulting fastness, lightness, darkness, brightness and dullness. See p.226 Results must also be seen as ranges – amounts of colouring compounds present are affected by differences in the growing season, soil etc. while the results of mordant dyeing vary with the composition of the naturally occurring metal salts. Goodwin (1982:34-8, 59-60) Barber (1991:236-39, esp. n.19)

[18] Hilzheimer (1936)

[19] e.g. Pliny *NH* 8.190-93 but of course, some sheep **were** white, see p.165. Hilzheimer (1936:195-206)

[20] Wool: Pliny *NH* 7.187-9; 8.190-93; 8.198-99;19.16-18; Plut. *De Iside* 4; Theocr. *Idyll* 25; Aelian *NA.* 16.32; Demosth. or 97.52; Polybius 9.17. Flax: Pliny *NH.* 19.16-18; Paus.5.5.2; 6.26.6; 7.21.14; 8.24.11; X.*Cyr.*2.4; Philostr.*VA.* 8.7.5

The next step was obtaining a usable fibre. Wool had to be removed from the sheep and washed to separate out dirt, twigs and burrs, and at least some of the lanolin.[21] Wool might be dyed at this stage 'in the wool,' and if the fleece had been shorn, 'in the fleece,' a process which produces a gradation of shades.[22] Flax stalks had to be rotted in water, beaten to loosen the outer husks from the fibre, and hackled to remove the debris from the fibres.[23] These stages of the process required, for both fibres, only access to reasonable quantities of fresh water, before the fibres were ready to be made into yarn.[24] Access to large quantities of water was of even greater importance for bleaching and fulling: activities which formed part of the textile manufacturing process, and which were also applied to finished garments for cleaning purposes. Lanolin in wool attracts dirt, so that wool needs to be washed before it is dyed (at whatever stage).

Wool first had to be carded to align the fibres for spinning, while the longer, smoother, fibres of flax were less prone to tangle. Hanks of fibre were then teased out and spun into yarn using the drop spindle, often in conjunction with the distaff to give a longer drop.[25] Colour might be added at the carding stage for wool, by carding together different natural or dyed colours to produce the required shade. Both flax and woollen thread could be dyed 'in the yarn.' It should be noted that dyeing in the yarn is better suited to domestic scale utensils than dyeing whole cloth, because separate hanks of yarn can be more easily agitated in small dyebaths (necessary to allow the dye to reach all of the fibres) than can a single large piece of cloth.

The fibres were then ready to be made into cloth, most commonly on the warp-weighted loom. Colour could be added to the fabric as it was being constructed on the loom in a variety of ways, some of which (varying the colours of the warp fibres, or setting up the warp for pattern weaves) had to be planned from the start, others added as the work progressed, either by weaving in patterns, or using a variety of weft colours in different parts of the fabric, or by embroidering patterns on the cloth while it was stretched on the loom. (e.g. Il.22.440-8) All of these colouring techniques used yarn which had already been coloured, and it should be noted that the first two in particular allow the weaver to combine colours optically (fabric woven in standard weave with a yellow warp and blue weft, or vice versa, will produce a green appearance in the finished cloth).[26] Cloth could also be woven from a uniform colour of yarn, and dyed or bleached once it had been woven.[27] This would particularly have been the case if the type of textile being woven was intended to be fulled to produce

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[21] Impurities: Dioscur. 2.84; Paus. 8.42.11; Galen 19.125. Preparation: Ar.*Lys.*574: Arist. *HA.* 3.20; *Geop.* 2.4.2; Poll. 7.32. Plucked or shorn? It hardly matters to the colour. Pliny, *NH.*8.197; 29.35

[22] Goodwin (1982) and Pliny, as n.20

[23] See n.25

[24] Or less commonly, felt, for wool. Il.10.296, Hdt.4.46, X.*Anab.*2.5.23, Strabo 15.315; 15.1.67

[25] Egyptian linen could be made from thread composed of single flax fibres spliced together, rather than a twisted group of fibres. It is worth noting at this stage, that although the Greeks seem not to have gone to this extreme, the finished quality of cloth depends considerably on how finely or coarsely spun the component threads are. This in turn is a function of the length of the individual fibres being spun (the point of spinning being to produce a continuous thread from relatively short fibres). Thus the mediaeval distinction between long and short staple wool, and thus the reason that linen thread and fabric are generally finer than woollen, since fewer of the longer flax fibres are necessary to make a thread of acceptable strength. i.e. Hdt.3.47

[26] Produced by dyeing, or natural wool colours or a combination.

[27] Egyptian mordant pattern dyeing, Pliny *NH.* 35.

various specialised finishes.[28] The most common detergents seem to have been stale urine, leached plant ashes, and fuller's earths, and the cleaning processes aided by bleaching in the sun.[29] These processes were particularly important for textiles which were intended to be white, and could be complemented by 'stoving' the cloth over burning sulphur.[30] It is important to note that white fabric would require as much or more regular care to preserve the colour as would dyed. It is also interesting to compare the linen/woollen, inner/outer distinction which applied to medieval clothing to the general distinction between linen *chiton* and woollen *himation* in Greek clothing. Obviously, woollen cloth has better insulating and water-repelling qualities, making it suitable for outer-wear. But in the middle ages at least, this distinction was also based on washing habits, since it was easier to wash the lighter linen inner clothes, and common to simply brush the heavier woollen outer ones.[31] While cloth of a single dyed colour could be produced by weaving with dyed yarn, this produced a less uniform effect (given the inevitable variations in shade between different dye baths, even of the same stuff, required to dye enough yarn) than dyeing the whole cloth.

2.2 Dyeing, Dye-fastness and the Processes of Textile Production:

The above summary has introduced the basic processes of textile manufacturing, and the points within it at which colour could be added or controlled. What it has not made explicit is the fact that different considerations were in play at each of these points. If we consider the colouring of un-spun wool, hues which were achieved by using or blending different natural colours of wool were permanent, but the range of colours was limited. Although variant colours could be produced by carding together dyed wool before spinning, a similar finished effect could be achieved in the weaving process, and it seems likely that wool was more frequently dyed once it had been spun, since it was less bulky, and the quality of the yarn was then established. Nevertheless, the natural colour of the wool continued to be important even if it was to be dyed. White wool was necessary if the resultant colour was to be bright or light, but darker natural shades of wool intensified the effects of dyeing darker colours (and likely prolonged the colouration of the fabric).[32]

The type of cloth being produced introduces other considerations. Cloth woven from a single colour of yarn could be dyed after it was woven. Un-patterned cloth, woven from dyed yarn, or dyed once finished, did not necessarily have to possess good dye-fastness, since the colour would fade at a

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[28] Washing and pounding after weaving imparts a firmer texture to woollen cloth, and the nap can also be raised and/or shorn to improve softness and insulation. s.v. LSJ γναφ- & κναφ-

[29] Wild (1988:57) Lutz (1923:73-4)

[30] Unbleached linen is grey. Wool would gradually re-oxidise to a cream colour. Linen could also be 'polished' to produce a shining finish. Wild (1988:58)

[31] See Harte (1983)for general references and bibliography. It is partly for this reason, as well as the dyeing properties of linen, that medieval inner garments were generally undyed. See p.148-51 re. *chiton*. The modern equivalent is between washable and dry-clean clothes. Clothes washing was, of course, much less frequently undertaken in the pre-industrial era, and it appears as a distinctive topos in Greek literature, see p.167-68 and e.g. Od.6.15-120

[32] *'On Colours'* 794a16-794b11 (Trans Hett, 1955) "The steeping in alum in the dyeing process produces many differences and mixture, and so do the qualities of the substances dyed...Consequently what is called 'brown-grey' is brighter when on black wool than on white."

relatively even rate, and could if necessary, be re- or over-dyed.[33] However, dye-fastness must be seen as an important consideration for patterned cloth (especially in-woven pattern, which could not be unpicked) since the fading of the colour would destroy the pattern. It seems likely, however, that dye-fastness would still be of varying importance – less so for the all over pattern weaves, like twill, or for colour effects achieved with different coloured warp and weft, or for textiles with a variety of base colours – but almost essential for in-woven borders or patterns intended to stand out against the base colour, or for embroidery, since these would be most obviously affected by fading, and were more time consuming to produce.

It is clear therefore, that not only could colour be added at differing stages of textile production, but that a variety of considerations depended on this. These considerations must have conditioned the dyestuffs and techniques which were used, and so these are described below.

3. An Outline of Dyeing Techniques

The most basic scientific definition of a natural dyestuff is: a naturally occurring organic compound which, when rendered soluble in water, will form a chemical bond with the molecules of an organic fibre to produce an alteration of the fibre's reflective and/or refractive properties (colour). In practical terms, this definition suggests the three basic processes which are required to naturally dye a textile fibre: identifying and obtaining the source of the compound: treating it to extract the colouring substance and render it water soluble: applying the solution to the appropriate fibre in such a way as to form the chemical bond.[34] For some natural dyestuffs, all three stages of this process are relatively simple. One simply picks the distinctively coloured stamens of the saffron crocus, steeps them in water, and adds any organic fibre in the presence of moderate heat to produce a vivid, distinctive colour. For others one or more of the stages are exceedingly complex. For instance, dyeing textiles with murex by-products requires: that one know a dyestuff may be produced from this particular shellfish, identify and obtain it, successfully separate the particular part of the shellfish required, undertake a complex and still imperfectly understood process of chemical reduction in the presence of a variety of other compounds and particular levels of light and heat to render the colouring compound water-soluble, and apply it to the fibre in the presence of very specific amounts of heat and light for a particular amount of time.[35] The end result however, is one of a wide range of shades of extremely fast and distinctive colours. Other dyestuffs are easier to obtain and render soluble, but will only form chemical bonds with the fibres in the presence of other water-soluble chemicals (mordants) the type and quantity of which will affect both colour and fastness.

The fact that dyestuffs are defined and identified by their suitability for all three stages of this process, and that for many dyestuffs, varying the details of one or more of the stages will produce

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[33] See p.157, A.2

[34] Modern chemistry has identified the particular chemical compounds which form the basis of this process, and they are present in very many plants and animals, although in practice, the number of sources from which they can be successfully obtained in water soluble form and usable amounts is relatively limited. It should also be noted that protein fibres (wool, silk) have different chemical properties to plant fibres (flax etc.) so that different dye processes may be required to form the chemical bond. In general, a wider range of dyestuffs and processes can be used on protein fibres.

different results in terms of fastness, hue, and the other qualities of colour, means that natural dyestuffs are often classified simply by the techniques used to obtain and apply them.[36] Although this chapter will not do so, since it aims to examine the implications of the interactions between availability and result as defined above, an understanding of the origins of this classification, and how these affect the practical availability of different shades, is essential.

In terms of classification by techniques, natural dyes can be divided into four basic types and two sub-types: direct dyes: acid dyes: mordant (and reactive) dyes: vat (and oxidation) dyes. Direct dyes are distinguished by the natural solubility of the dyestuff as it exists in the source plant. They are therefore easy to obtain and apply (though with the exception of saffron, only to plant fibres[37]) requiring only the presence of water and heat, but remain water-soluble after dyeing, and so are not wash-fast.[38] Most natural dyes can be applied as acid dyes to protein fibres, in a similar manner to direct dyes to vegetable fibres, requiring only the addition of plant acids where the dye source itself does not contain them.[39] Again, however, using this process, the dyestuff remains water-soluble after dyeing.

Mordant dyes are those that require the presence of other chemicals in addition to the dyestuff to form a chemical bond to the fibre. In general, mordant dyes can be simply obtained from the plant or animal source, applied to both types of fibres, and form a permanent chemical bond (the dyestuff forms a non-water-soluble compound with the fibre). Most natural dyes can be applied as mordant dyes.[40] Unlike the techniques of direct and acid dyeing, which produce a single shade from a dyestuff, the technique of mordant dyeing allows the dyer to obtain a variety of results from the same stuff. The complexity of mordant dyeing lies in the application of the dye to the fibre, rather than the processes of obtaining or preparing the dyestuff. Mordants may be organic alkalis or metal salts, sometimes used also in the presence of plant acids, and most may be applied either before or during (more rarely after) the dyeing process.[41]

Vat dyeing techniques are required for only a very few (though important) natural dyes – those obtained from the plants woad and indigo (and from shellfish) all of which contain varieties of the chemical indigotin. In order to render this compound water soluble, complex and lengthy processes of fermentation and chemical reduction are required, but the subsequent application to the fibre is simple for woad and indigo (generally requiring time and low levels of heat) and produces a result of high wash-fastness (but low wear-fastness). Oxidation dyes are not, strictly speaking a separate class of dyes, since the vat techniques usually involve a final oxidation reaction, where the

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[35] Timar-Balaszy (1998:70-75) Goodwin (1982:72, 82-4) and see n.15 re. purple
[36] Chambers (1954) s.v. 'Dye' and 'Dyeing'
[37] And henna, Goodwin (1982:110)
[38] Timar-Balaszy (1998:70)
[39] Timar-Balaszy (1998:73) Goodwin (1982:106-115)
[40] See Table 1
[41] Reactive dyeing involves mordanting with a metal salt, followed by the addition of an alkali, which induces precipitation onto the fibre. See p.183 on pigments and Timar-Balaszy (1998:76)

result colour develops on exposure to light and air.[42] However, varying the stage at which oxidation is applied, and the timing, can produce a variety of colours.[43]

To sum up: direct and acid dyes are easy to obtain from the source and to apply. However, there are a limited number of direct dyes, the resultant colours of these processes cannot be varied, and they are not wash-fast. Therefore, although eminently suitable for domestic use, they are not appropriate for all stages in the textile production process, and the palette of shades produced is limited (further by the fact that not all the sources of such dyes are naturally widespread or easy to cultivate). Mordant dyes are easy to obtain from their sources, include most natural dyestuffs, and so provide a wide palette, which is further extended by the possibility of obtaining a variety of shades from the same stuff. Their high fastness makes them suitable for all stages of textile production. However, while some mordants can be simply produced from common natural sources, some require more complex processes, while others occur naturally only in specific areas, and so would likely be available only through trade, a factor which must be taken into account when considering the palette.[44] Of the vat dyes, only woad can be readily cultivated in Greece (indigo was imported, but from what period is not clear[45]). Although dyeing with woad is a relatively complex and lengthy process, it has certainly been used domestically in other periods and contexts.[46] The processes of vat dyeing with murex were far more complex, and the loss of the technique in late antiquity provides all the proof really necessary that this was generally a specialised, 'industrial' process.[47]

3.1 The Practice of Dyeing

The widespread importance of clothing manufacture and trade in the economies of the Middle Ages, no less than the overwhelmingly industrial nature of modern synthetic dyeing, has tended to emphasise dyeing as a large-scale, specialist, activity. It should be acknowledged however, that this emphasis, which exists also for the Roman and Hellenistic periods of antiquity, is largely a matter of record; large-scale concerns of any kind are more likely to engage in recorded trade and transactions, operate from distinctive premises, and be noticed incidentally by authors writing on other subjects. In periods where a money economy existed but was not universal, specialist or imported goods are more likely to be purchased, used, depicted and discussed as part of the lifestyle of social elites. The importance of such records for the historical study of clothing and textiles is particularly marked given their extreme perishability. However, they inevitably skew perceptions of the nature and prevalence of colour in clothing.

It is important to recognise that historically, dyeing was never exclusively a large-scale activity, and that consequently, the absence of large-scale dyeing concerns, or trade in dyes, from the

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[42] See p.229 re. woad
[43] Timar-Balaszy (1998:75) also Zidermann 'Purple Dyeing' and Greenspan 'Royal Purple and Egyptian Blue in Jewish Ritual' papers delivered at Edinburgh, 2001
[44] See Tables 2&3
[45] Barber (1991:235)Ponting (1976:75) Forbes (1956:110-1) Casson (1989:43) Pliny, *NH*.33.163; 35.43; 37.84; Dioscur.5.107; Vit.7.9.8
[46] Goodwin (1982:76-8, 82) and n.42 above.
[47] Lowe, B.J. *'The Industrial Exploitation of Murex'* delivered at Edinburgh, 2001. Badie et. al (2000) Vit.7.13.3; Pliny, *NH*. 9.62.133

historical record, does not equate to the absence of dyeing, or of colour in clothing.[48] Even at the height of the cloth trade and dyers' guilds in the Middle Ages, most clothes and their colours were produced on a local or domestic scale.[49] For a period such as Classical antiquity, which predates the economic developments of the Hellenistic period, such recognition is even more important. Certainly, dyeing can be an industry, or a profession, but it can also, like cooking, more commonly be an art or a domestic chore. Indeed the requisite equipment is very simple, and similar to or adaptable from, that for cooking.[50]

Like cooking too, natural dyeing depends in large part on an unselfconscious knowledge of a very few basic chemical processes and a willingness to experiment. The major constraints on effective domestic dyeing Classical Greece are likely to have been the size of heatable, non-metallic, water containers available and the supply of fresh water, rather than a particularly restricted range of shades.[51] Specialist dyers' on the other hand, apart from the benefits of having secured a sufficient supply of water and large containers, would also have had the advantages of being able to import dyestuffs and other materials which were not locally available, like the rarer mordants, in order to produce more unusual colours. But again it is worth emphasising that it was not necessarily in terms of the range of shades that specialist dyers had the advantage, but more probably, in terms of the production of the more distinctive and difficult colours and their repeatability.

4. Dyeing and Colour: Availability and Results

The sections above have outlined the basic processes and considerations involved in adding colour to textile fibres, and introducing it as an aspect of textile production. They have asserted the existence of an extensive total palette theoretically available for clothing, given the possibilities of over-dyeing, mordanting, and the structural techniques for mixing existing dyed colours within a finished textile. Just as Chapter One argued from philosophy that there was no lack of colour terms or categories in Greek thought, so the background evidence about dyeing argues that there was no lack of colours that could be applied to textiles. And yet, the evidence from inscriptions and literature discussed by Chapters Three and Four above has revealed a relatively small number of specific colour terms applied to textiles.[52]

How is this apparent paradox to be resolved? The sections above have implied that some dyestuffs were more efficient and effective in terms of their availability and results (ideas which are applied to individual dyestuffs below). Even the most superficial survey of ancient, mediaeval or modern natural dyeing manuals and terms confirms this: although the range of potential natural

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[48] Labarre & Le Dinahet (1996:49-118)

[49] It should also be noted that the range of colours used by ordinary people's clothing in the Middle Ages was frequently artificially restricted either by explicit sumptuary ordinances or by informal considerations of social status, reinforced by the effective control allowed by feudalism and serfdom over the economic and agricultural, as well as social, activities of the lower orders. Generally, Harte (1983) and see p.256f

[50] Goodwin (1982) Cannon (1997)

[51] "It is not ... necessary to employ toxic salts ... throwing scraps of metal into the dyepot will have some mordanting effect." Barber (1991:237) Kardara (1977:36)

[52] See also p.58f.

dyestuffs is vast, there are a very restricted number – woad, madder, kermes, weld, saffron – which are both effective in a number of respects, and produce unusually vivid shades.[53] In fact, a large part of the concern of this chapter is to emphasise that these dyestuffs, and the variations on the 'primary' shades they produce, were not the only ones available, nor, in all probability the most common.[54]

4.1 Introduction to Dye Tables

The tables below are a means of condensing and structuring the large volume of complex and often contradictory information relating to natural dyestuffs. Their detailed arrangement is best appreciated from the Key, p.207. However, their functions can be simply summarised. Table 1 indicates the range of potential dyestuffs and resultant colours, and together with the Key provides the main structure for the ancient and technical references in the endnotes.[55]

The described colour results are attested for each combination of source and process by modern dye manuals, and should be regarded (as emphasised by the use of plurals, hyphens, and 'hue' to 'hue' descriptions) as ranges within which results fall. It should be noted that around half of all the combinations produce colour results in the yellow-green-brown range. Tables 2 and 2a therefore concentrate on the production of the more unusual colours, including information on availability and fastness, while Table 3 does the same for common colours with unusual qualities. These tables highlight combinations which appear to have been both effective, and available to the widest range of dyers. In short, these tables are primarily illustrative or suggestive. They contextualize the production of those aspects of colour in clothing (unusual hues, qualities of brightness, darkness and saturation) which have been emphasised by the other evidence, and relate them to availability. Readers who require more detailed information are referred to the endnotes and the bibliography.

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[53] See Key, p.218 and cf. Table 1

[54] See p.229 - when so many shades were available without special cultivation or imported.

[55] This table is not intended as a definitive statement of the total range of dyestuffs available to ancient Greek dyers. Not all the plants here are attested in the sources (those which are, are referenced). However they now grow in the region, and are not known to be introductions of the intervening period. Overall, the list errs on the side of caution, but I believe it to be generally representative of both the overall colour range, and of the relationship between plants which are specifically regarded as dye sources, and those which can be used to dye. Botanical names have not been given because they are generally unreliable in the modern sources.

8.1 Key to Tables

Table 1

Fib. = Fibre type: 'L' = linen, 'W' = wool, see above, n.18, 19

Dye Type = Method of application, see above, p. 213ff

D = Direct – Timar-Balaszy (1998:72) etc.

A = Acid[56] – Timar-Balaszy (1998:73) etc.

M = Mordant – T-B (1998:73-4) etc.

V = Vat – T-B (1998:74) etc.

Mordant Type[57] = variety of possible mordants, see p.213ff

Al. = Alum, see Pliny *NH.*24.96; 35.150; 35.183-8 and also, for all Pliny references, Bailey (1932) also Barber (1991:237) Campbell-Thompson (1936:33) Radcliffe-Caley (1926:1161) and n. above.

Am. = Ammonia, usually obtained from stale urine. Pliny *NH.* 28.66, 91; Kardara (1977:38); Radcliffe-Caley (1926:1161)

T. = Tartaric acid, produced naturally in wine vats. Penguin (1969:26, 418) Campbell-Thompson (1936:23) Radcliffe-Caley (1926:1161)

P. = Potash. Forbes (1956:108) Campbell-Thompson (1936:6, 11, 17, 54)

Fe. = Iron & Iron Salts, see n. above and Goodwin "Iron hardens fibres and darkens or saddens colours" (1982:34) Campbell-Thompson (1936:89-91)

Cu. = Copper & Copper Salts, see n. above and Goodwin (1982:34) Campbell-Thompson (1936:93, 98)

Sn. = Tin & Tin Salts, as above, and Goodwin "most often used as a brightener" (1982:34) Barber (1991:238, n.19)

Oth. = Other mordants; vinegar, as below, wood ash solution, Goodwin (1982:32) and soda, Campbell-Thompson (1936:6, 7, 10-11)

Colours = general reported range of results from Goodwin (1982) and Cannon (1997).

Quality = as above, notes unusual colour-quality of the result.

* = indicates that the dye source can also be used as a food source.

[i.] = indicates the existence of a recognised Greek dye term, see endnotes for references. Generally following Forbes (1956)

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[56] Vinegar (acetic acid) from wine, lemon juice etc. (citric acid) from fruit, oxalic acid from sorrel roots, tannic acid from (esp. willow and oak) bark and particularly oak galls. Goodwin (1982:32, 47-50) Radcliffe-Caley (1926:1161)

[57] Goodwin (1982:32) and Penguin Dictionary of Science (1969:275)

Tables 2 & 3

As Table 1 above, plus:

Dye Quality = this column details combinations of relative fastness and availability, see above, p.217ff

Common? = indicates approximate availability

Food = Edible source, likely to be cultivated or gathered anyway.

Wild = Indigenous to (most parts of) region.[58]

Loc. Import/Easy Cult. = Indigenous, but of restricted ranges, or requiring simple cultivation.

Import = dye source not indigenous, see endnotes.

Mordant/Common? = indicates probable mordant availability, see above, re. individual mordants.

House = household substance, by-products of domestic activities. [Fe. Cu. Am.T. & most 'Other']

Trade = imported, but known to have been widely traded and used [Al. Sn.]

Import = less common imports [Potash? see above cf. Barber (1991:238)]

= Indicates combination of relative fastness and availability to widest range of dyers.

[58] See Cocking (1987: Appendix) and Bibliography below for botanical information.

4.3 Table 1: Dye Sources and Results

Plant/ Source	Fib.	Dye Type				Mordant Type								Colours	Qual.
		D	A	M	V	Al	Am	T	P	Fe	Cu	Sn	Ot		
Acorn	LW			*		*								Brown	
	LW			*							*			Olive Green	
Agrimony	LW			*		*								Yellow	
Alder	LW			*		*								Yellow	
	LW			*							*			Green	
Alkanet[i]	L	*												Red	
	W		*											Bright Red	Bri
	W			*		*		*						Red-Brown	
Archil[ii]	LW			*					*					Purple	
Ash	LW		*											Yellow	
Bedstraw	LW			*		*			*					Orange-Reds	
	LW			*					*	*				Purple-Reds	
Blackberry*	LW			*		*							vin	Pink	
	LW			*						*			vin	Green-Greys	
	LW			*							*		vin	Green	
Blackcurrant *	W		*											Pink to Grey	
Bracken	LW			*		*								Yellow-Green	
Broad Beans*	LW			*							*			Green	
Broom[iii]	LW			*		*		*						Yellow	
Bryony	W		*											Purple	
Buckwheat*	LW			*		*								Yellow	
	LW			*							*			Olive-Green	
Camomile*	LW			*		*		*						Bright Yellow	Bri
Chestnut*	W		*											Browns	
Chicory*	LW			*							*		soda	Rich Burnt-Orange	Deep
Cypress	W		*											Browns	
Damsons*	W		*											Pinks/Purples/Bla	Dark
Dandelion	LW			*		*								Bright Yellow	Bri
	LW			*								*		Orange	
Elder	W		*											Blue to Purple	
Elecampane	LW			*									ash	Blue	
Fennel*	LW			*						*				Brown	
	LW										*			Bronze-Green	
Geranium	W		*											Pinks/Purple/Grey	
Gypsywort	LW			*			*			*				Rich Brown	Deep
Heather	LW			*		*								Yellow	
Henna[iv]	L	*												Yellow	
Holm Oak	LW			*						*				Browns to Greens	
Hops	L	*												Brown-Reds	
Iris	LW			*		*								Yellow	
	LW			*						*				Black	Dark
Juniper*	LW			*		*								Olive-Brown	
	LW			*		*								Purple-Brown	

Table 1 (cont.)

Plant/Source	Fib	Dye Type				Mordant Type								Colours	Qual
		D	A	M	V	Al	Am	T	P	Fe	Cu	Sn	Oth.		
Kermes[v]	W		*											Rose to Bright Red	
	LW			*		*		*						Dark Red	Dark
	LW			*		*				*				Grey-Blue to Black	Dark
	LW			*				*			*			Scarlet	Bri
Madder[vi]	L	*												Red	
	LW			*		*								Red-Brown	
	LW			*						*				Brown	
	LW			*								*		Scarlet	Bri
Marigold	LW			*		*								Yellow	
	LW			*							*			Green	
Marjoram*	LW			*		*								Green	
Mulberry	W		*											Grey-Purple	
	LW			*		*								Yellow	
Murex[vii]	LW				*									Reds to Purples	Bri
Onion*	LW			*		*								Yellow	
	LW			*						*				Browns	
	LW			*								*		Bright Orange	Bri
Peach*	LW			*		*								Yellow	
	LW			*							*			Green	
Pear*	LW			*		*								Yellow	
	LW			*						*				Brown	
	LW			*							*			Green	
Persian Berries [viii]	W		*											Violet	
	LW			*								*	vin	Purple	
	LW			*		*								Yellow	
	LW			*						*				Dark Brown	Dark
Plum*	W		*											Purple-Greys	
	LW			*		*								Yellow	
Poplar	LW			*						*				Grey	
	LW			*								*		Brown	
Poppy	LW			*		*		*						Yellow-Orange	
Quince[ix]*	LW			*		*								Yellows/Pinks	
Reeds	LW			*		*		*						Pale-Green	Bri
Safflower[x]	L	*												Yellow	
	W		*											Red	
	LW			*		*								Poppy Red	Bri
	LW			*			*							Red	
	LW			*				*		*				Orange	
	LW			*							*		cit	Rose	
	LW			*					*					Orange	
Saffron*[xi]	LW	*												Saffron Yellow	Bri
Sage*	LW			*		*		*						Yellow-Buff	
	LW			*		*		*		*				Grey-Green	
	LW			*		*		*			*			Green	
St. Johns Wort	LW			*		*								Yellow	
	LW			*								*		Orange-Red	

Table 1 (cont.)

Plant/ Source	Fib	Dye Types				Mordant Types								Colours	Qual
		D	A	M	V	Al	Am	T	P	Fe	Cu	Sn	Oth		
Sorrel	W		*											Pinks	
	LW			*			*							Dark Olive	Dark
	LW			*							*			Green	
	LW			*			*				*			Foxy-Brown	
	LW			*			*			*				Olive -Green	
Sumach[xii]	LW	*												Yellow-Brown	
	LW			*		*								Brown	
Sunflower	LW			*		*		*						Yellow	
	LW			*		*		*			*			Olive-Green	
Tansy	LW			*		*		*						Yellow	
	LW			*		*		*		*				Dark Green	Dark
	LW			*		*		*			*			Green	
Terracotta	LW			*		*								Browns	
Toadflax	LW			*		*								Bright Yellow	Bri
	LW			*			*			*				Dark Brown	Dark
	LW			*						*				Dark Green	Dark
	LW			*							*			Green	
Tomato	L	*												Brown-Red	
	LW			*		*								Buff	
	LW			*							*			Green	
Turnsole[xiii]	LW			*			*							Blue-Green	
	LW			*									lime	Red	
Water Lily	L	*												Dark Brown	Dark
	LW			*						*				Black	Dark
Weld[xiv]	LW			*		*		*						Yellow	
	LW			*		*						*		Orange	
	LW			*			*	*			*			Bright Green	Bri
	LW			*						*				Moss Green	
	LW			*				*				*		Bright Yellow	Bri
	LW			*					*					Gold	Deep
Walnut	LW		*											Browns to Blacks	Dark
Willow	LW		*											Pink to Rose	
	LW			*		*								Yellow	
Woad[xv]	LW				*									Blues	
	LW			*		*								Pinks	
Yarrow	W		*											Deep Green	Deep
	LW			*						*				Dark Olive-Green	Dark
	LW			*							*			Dark Brown	Dark
Yew	W		*											Pinks, Reds, Orange	

4.4 Table 2: Dyes by Colour – Blue, Black, Purple, Pink, Orange

Plant / Source	Fib	Dye Type				Dye Quality		Mordant	Colour	Quality	
		D	A	M	V	Fast	Common	Common			
Elder	W		*			-	Wild	-	Blue to Purple		
Elecampane	LW			*		F	Wild	House	Blue		#
Kermes	LW			*		F	Import	Trade	Grey-Blue to Black	Dark	
Turnsole	LW			*		F	Wild?	House	Blue-Green		#
Woad	LW				*	F	Easy Cult.	-	Blues		#
Iris	LW			*		F	Wild	House	Black	Dark	#
Water Lily	LW			*		F	Wild	House	Black	Dark	#
Walnut*	LW		*			-	Food	-	Browns to Blacks	Dark	
Archil	LW			*		F	Loc. Imp	Import	Purple		
Bedstraw	LW			*		F	Wild	Import	Purple-Reds		
Bryony	W		*			-	Wild	-	Purple		
Mulberry	W		*			-	Wild	-	Grey-Purple		
Murex	LW				*	F	Import	-	Reds to Purples	Bright	
Persian Berries	W		*			-	Import	-	Violet		
	LW			*		F	Import	Trade	Purple		
Plum*	W		*			-	Food	-	Purple-Greys		
Blackberry*	LW			*		F	Food	Trade	Pink		#
Blackcurrant*	W		*			-	Food	-	Pink to Grey		
Damsons*	W		*			-	Food	-	Pinks/Purples/Black	Dark	
Geranium	W		*			-	Wild	-	Pinks/Purples/Greys		
Sorrel*	W		*			-	Food	-	Pinks		
Willow	LW		*			-	Wild	-	Pink to Rose		
Woad	LW			*		F	Easy Cult.	Trade	Pinks		#
Yew	W		*			-	Wild	-	Pinks, Reds, Orange		
Bedstraw	LW			*		F	Wild	Import	Orange-Reds		
Chicory*	LW			*		F	Food	House	Rich Burnt-Orange	Deep	#
Dandelion	LW			*		F	Wild	Trade	Orange		#
Onion*	LW			*		F	Food	Trade	Bright Orange	Bright	#
Poppy	LW			*		F	Wild	Trade	Yellow-Orange		#
Safflower	LW			*		F	Easy Cult.	House	Orange		#
	LW			*		F	"	Import	Orange		
St. Johns Wort	LW			*		F	Wild	Trade	Orange-Red		#
Weld	LW			*		F	Easy Cult.	Trade	Orange		#

4.4 Table 2a: Dyes by Colour - Reds

Plant / Source	Fib	Dye Type				Dye Quality		Mordant	Colour	Quality	
		D	A	M	V	Fast	Common	Common			
Alkanet	L	*				-	Easy Cult	-	Red		
	W		*			-	"	-	Bright Red	Bright	
	W			*		F	"	Trade	Red-Brown		#
Kermes	W		*			-	Import	-	Rose to Bright Red		
	LW			*		F	"	Trade	Dark Red	Dark	
	LW			*		F	"	Trade	Scarlet	Bright	
Madder	L	*				-	Easy Cult	-	Red		
	LW			*		F	"	Trade	Red-Brown		#
	LW			*		F	"	Trade	Scarlet	Bright	#
Murex	LW				*	F	Import	-	Reds to Purples	Bright	
Safflower	W		*			-	Easy Cult	-	Red		
	LW			*		F	"	Trade	Poppy Red	Bright	#
	LW			*		F	"	House	Red		#
	LW			*		F	"	House	Rose		#
Turnsole	LW			*		F	Wild	House	Red		#
Bedstraw	LW			*		F	Wild	Import	Orange-Reds		
	LW			*		F	Wild	Import	Purple-Reds		
Hops	L	*				-	Wild?	-	Brown-Reds		

Table 3: Dyes (Other Colours) by Quality

Plant / Source	Fib	Dye Type				Dye Quality		Mordant	Colour	Quality	
		D	A	M	V	Fast	Common	Common			
Camomile*	LW			*		F	Food	Trade	Bright Yellow	Bright	#
Dandelion	LW			*		F	Wild	Trade	Bright Yellow	Bright	#
Gypsywort	LW			*		F	Wild	House	Rich Brown	Deep	#
Persian Berries	LW			*		F	Wild	House	Dark Brown	Dark	#
Reeds	LW			*		F	Wild	Trade	Pale-Green	Bright	#
Saffron*	LW	*				-	Import	-	Saffron Yellow	Bright	
Sorrel*	LW			*		F	Food	House	Dark Olive	Dark	#
Tansy	LW			*		F	Wild	Trade	Dark Green	Dark	#
Toadflax	LW			*		F	Wild	Trade	Bright Yellow	Bright	#
	LW			*		F	"	House	Dark Brown	Dark	#
	LW			*		F	"	House	Dark Green	Dark	#
Water Lily	L	*				-	Wild	-	Dark Brown	Dark	#
Weld	LW			*		F	Easy Cult.	House	Bright Green	Bright	#
	LW			*		F	"	Trade	Bright Yellow	Bright	#
	LW			*		F	"	Import	Gold	Deep	
Yarrow	W		*			-	Wild	-	Deep Green	Deep	
	LW			*		F	"	House	Dark Olive-Green	Dark	#
	LW			*		F	"	House	Dark Brown	Dark	#

4.5 Conclusions from Tables 1-3

The first point that should be made is that this chapter maintains the basic attitude to colour established in earlier chapters. In order to properly consider and investigate the specific colours that are most salient, it is necessary to maintain an awareness of the background of less salient colours.[59] This is particularly true of dyeing, where one finds not only a limited number of salient colours, but equally, a restricted number of salient dyestuffs (in both ancient and modern sources). It would be much simpler to concentrate on the restricted range of colours produced by the classic dyestuffs (essentially those referenced in the tables). And yet, as the tables have hopefully made clear, it would be a mistake to do so.

There is no doubt that the 'classic' dyestuffs were most important to trade, to specialist dyers, and to the non-specialist ancient commentators who supply most of our evidence. Probably, given their qualities described above, they were of major importance in dyeing of any sort. But to concentrate on these specific dyes is to concentrate on dyeing as an economic process, as a matter of record (aspects whose relationship to the gamut of possibilities has already been discussed above). More importantly for the purposes of this thesis, it is to concentrate almost exclusively on particular aspects of colour – the production of primary hues, as opposed to the 'variegated and ill-defined among colours' – and thus to make unwarranted assumptions about the significance, production and use of colour in clothing, precisely those aspects which this thesis aims to investigate.[60] It is for this reason that the tables above have included as wide as possible a range of potential dyestuffs, and have concentrated on establishing which dyes were available to be used, and with what degree of efficacy, by the widest range of dyers – a range which must, and should, include dyeing as part of domestic textile production.

The classic dyestuffs are already well studied for the ancient world.[61] It is not my intent to play down their importance, but rather to locate and contextualise them within the wider possibilities for the production of colour in textiles, in order to consider how this impacted on the range of colours that previous chapters have found to be salient. By considering this wider range of dyestuffs, several features emerge as distinguishing qualities. Compared to plants with 'incidental' dyeing properties, the classic dyestuffs are generally notable for their ranges of potential colour, for the fact that they produce relatively unusual colours or qualities, and for their fastness.[62] Most of the other sources produce colours in the yellow-green-brown range, and/or are not fast. Nevertheless, as has been argued, these qualities would **not** have disqualified them from use in various contexts within the textile production process.

Much of the evidence discussed in previous chapters has pointed to a conceptual distinction between remarkable and unremarkable colours, particularly in clothing. The evidence from dyeing presented in the above tables suggests that the least remarkable colours would have been those in the

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[59] See p.2-11
[60] See p.2-11
[61] Barber (1991) for full discussion, summaries and references, also Endnotes, p.229
[62] This chapter considers fastness in general terms. Specific information about relative dyefastnesses can be found in the referenced works. It is apparently very difficult to establish anyway, and certainly requires complex discussion which is not strictly relevant here.

yellow-green-brown range which did not possess the relatively rare qualities of brightness, darkness, or saturation.[63] The most remarkable colours should be those which were rare as results of source-process combinations, **and** which possessed the above qualities.[64]

When the more unusual colours are considered (Tables 2,2a) the interaction between considerations of colour, fastness, and availability becomes clearer. Black and blue are the least common in terms of the range of sources from which they can be produced, but several sources for each make them available, with reasonable fastness, to the widest range of dyers. In contrast, although there are eight results of purple, none are both fast **and** commonly available, while only two of the pink results are so. There are a wide range of fast, easily available, orange shades (a high proportion of which also have unusual colour-qualities) but like pink, this group of colour results is considered further below, since none of the evidence of previous chapters has produced a clear term for either colour-group.[65]

The red group (Table 2a) is the widest outside the above-mentioned yellows, greens, and browns, both in terms of the number of dyestuffs, and of different resultant shades and qualities of the hue. Just under half of the source-process combinations would have been available, at reasonable fastness, to the widest range of dyers. It is notable that both the Greek term for madder and the geographical origins of kermes link these dyes closely to the two most prominent Greek terms for 'red.'[66] It is also notable that although these terms have not been particularly prominent in the inscriptional evidence, the predominance of red garments on white-ground lekythoi is undeniable.

As I have argued above that red was conceptualised as a particularly chromatic colour (in philosophical and linguistic terms) so I would argue that considering the red dyes provides a microcosm of the place of colour in Greek clothing. It is clear that a wide range of variants on the hue 'red' were widely available to Greek dyers.[67] However, as Table 2a indicates, of at least eighteen such variants, only twelve results are 'primary red' (three brown-reds, one, purple-red, one orange-red, one rose). Of these, only four are characterised as 'bright' and only two of these were widely available and fast. One might therefore infer that although 'red' was a common colour for clothing, only particular types of red were remarkable, because there were obvious visual distinctions between the type of 'reds' that could be easily produced domestically, and the clarity and quality of colour that might be the result of more complex processes. This accords with the contrast between the predominance of red in the representation of garments on lekythoi, and the restricted number of references to *phoinikos* clothing in the other sources.[68] These distinctions might well transcend in importance the common membership of the colour category 'red,' however the Greeks defined it.[69]

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[63] Please compare Table 1 to Tables 2, 2a, and 3. It should be emphasised that the majority of natural dyes which do not produce these qualities, produce result colours which are best characterised as dull or muted. When the rarer qualities are discussed, it should be remembered that these are the alternatives. Lightness is not salient in production except insofar as it requires white base fabric.
[64] See p.58ff
[65] See p.58ff, p.187
[66] See p.34, p.42, n.77 for further discussion
[67] See p.229
[68] See p.58ff, p.101 n.67, p.168
[69] cf. p.127ff - *thapsos, melinos, krokos.*

Table 3 introduces similar considerations. These results are not unusual in terms of their hue categories, but rather in terms of the qualities of colour they produce, qualities which other evidence has established to have been of particular significance in the salience of colour. Things to note are that: the number of results of a particular quality for each colour group are relatively very limited: and that the majority are easily available and fast, especially compared to Tables 2 and 2a.

A final point to consider is that fastness would affect not only manufacture (faster dyes for pattern, less fast suitable for single colour textiles) but also the evolution of colour in the garment. The colour of a garment when it was first made cannot automatically be regarded as static, and this must have also conditioned attitudes to colour in clothing. Some dyestuffs produce stable effects, some produce distinctive effects, and a very few produce both.[70] In general, the colour of a textile on first manufacture would tend to lighten with use and cleaning, and for most natural dyestuffs, the life of the colour would be shorter than that of the fabric itself.[71] This could be remedied by re-dyeing with the same dyestuff, or by over-dyeing, a process which must move the colour to a darker shade.[72]

Although the modern tendency is to rate dyestuffs according to fastness (a quality that has come, since the synthesis of dyestuffs, to be **expected**) this tendency should not be over-enthusiastically extended to ancient dyes. It is clear that saffron was a highly valued dyestuff, despite the fact that it is fugitive.[73] This may be attributed to the fact that it not only produces an extremely attractive and distinctive colour on textiles, but is also very easy and pleasant to dye with. It is therefore, probably, more appropriate, to consider fastness (visible as pattern and saturated colour) as one among many variables of colour in clothing. If we consider white, and bright and/or saturated colours in clothing, we should consider not only how they were produced (relative rarity and complexity of dye-process, and by inference expensive in terms of effort or money) but also what they might reveal about other aspects of the garment in question: that it was new, or recently re-finished, or carefully cared for and rarely worn.

5. Conclusions

This chapter has presented three primary considerations arising from the practicalities of dyeing which impact significantly on colour in clothing. Firstly, the range of dyestuffs in interaction with resultant hues and colour-qualities. Secondly, the variable importance of fastness in producing coloured and patterned textiles. And finally, the importance of considering the existence of colour in clothing as a process, beginning with its addition through dyeing and textile construction, but continuing throughout the life of a garment.

The consideration of dyes and dye-techniques has suggested the nature of unremarkable, non-salient colour in clothing: the natural (and common, for wool) colours of the undyed fibres, unembellished by pattern, and the wide range of easily obtainable non-fast colours in the yellow-green-brown range, which were neither dark, nor deep, nor bright, and which were not conducive to

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[70] See Tables, p.220-24

[71] Clothes as inheritance, Dem.27, and for conservation, Timar-Balaszy (1998)

[72] Accumulation of dyestuff reduces reflection. Also, of course, over-dyeing is only effective, even now, when the top-colour is darker.

the creation of pattern. The first of these groups would possess stable colour, altered only by degree of cleanliness. The second would show dirt less, but reveal age through fading.[74]

Both these groups would be opposed to clothing of more distinctive and/or unusual colour or colour-quality. Information about dyestuffs has indicated that this represents a range, extending from those effects which could be produced domestically with extra input of effort and expense, to those which were characteristic of specialist techniques and imported textiles.[75] Other evidence has suggested that red was, unsurprisingly, conceptualised as a particularly chromatic colour, and was also a common colour for represented clothing.[76] The evidence from dyeing confirms and explains this, but also indicates that it would be facile to assume that salience can therefore be ascribed purely to hue. The disparity between the evidence for the use of 'red' for clothing and the relatively restricted verbal representation of its salience may be ascribed to the fact that not all red clothing was *phoinikos*.[77]

Further, it is logical that the range of colours governed by dye-processes would be paralleled by the range of fabric quality: expensive, high-quality (in both senses) dyes or bleaching processes would not be applied to low-grade textiles, and vice versa.[78] The contiguity of colour and value is even more clear for pattern, which by its nature enhances the value of a textile by the additional time, skill and effort it requires to produce. The above consideration has also made clear however, that there are specific colour considerations involved in creating pattern. Again, we should consider a range: patterns might be created using contrasting natural colours of wool, or on undyed base fabric using relatively small quantities of fast-dyed yarn, and still retain their visual efficiacy. At the other end of the spectrum, patterns on dyed base fabric would be a powerful indicator of dye-quality.

Perhaps the most significant overall conclusion to be drawn from considering dyeing is that the range of possibilities for creating colour in clothing was very wide, that there are no hard and fast divisions in the ranges suggested above, and that the specific colours which have been represented by the evidence constitute the upper end of the spectrum of salience, not its totality. This has been particularly apparent in the dramatic evidence, and is an important consideration for the next chapter, which considers the social placement of colour in clothing.[79] For both these types of evidence, particularly the latter, what should be questioned is the **function** of representing or prioritising colour as an aspect of clothing.

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[73] See p.58f, p.138-39, p.157, 159-61, 167, 169ff

[74] It is a natural assumption that the neutral garments on lekythoi represent only the first of these groups – undyed clothing. However, I do not believe that this is necessarily the case, since it would be perfectly possible to represent the 'ill-defined' colours with earth pigments, but no noticeable attempt is made to do so – greens are generally bright, browns generally dark - and neutral colour is a cultural concept no less than defined colour. See p.2-10, p.63-64, 127f, 175-76, etc.

[75] See p.1

[76] See p.33-9, p.46ff, p.191-94 & Gage (1998:52-3)

[77] See p.34, p.58, p.183 for possible distinctions in semantic content, p.129 for similar marking of *phoinikos* and *halourgos* in decoration, p.167 cf. p.168 for dramatic references in similar contexts.

[78] Granger-Taylor 'Dyes and Coloured Textiles in the Greek and Roman World' delivered at Edinburgh, 2001

[79] See especially p.130-31 also p.154-5 for the abstraction of colour-reference in drama and its consequent paradigmatic function. See Ch.7, especially p.266-70 for social placement of colour as revealed by regulation.

6. Endnotes[80]

[i] ***Alkanet*** [καλύξ, πορφυρὶς ἀχούσα] Dioscur. 4.23; Pliny *NH.*22.48. Timar-Balazsy =T-B (1998:72) Goodwin (1982:106-115) Radcliffe-Caley (126:1161-3)

[ii] ***Archil*** [φυκὸς] Pliny *NH.*13.136; 26.66; Radcliffe-Caley (1926:1162) Forbes (1956:108) Campbell-Thompson (1936:31)

[iii] ***Broom*** [θαψὸς] Pliny *NH.*16.74 Cannon (1997:48) Mell (1932) and s.v. LSJ

[iv] ***Henna*** [κύπρος] Pliny *NH.*12.109; Cannon (1997:64) Goodwin (1982:110)

[v] ***Kermes*** [κοκκινὸς] Dioscur.4.48; Thphr. *Enq.Pl.* 3.16; Paus.10.36; Pliny *NH.*22.3; 9.141;26.33; 35.26;21.97; Strabo 3.2.6 ; Vit. 7.14; (as medicine) Pliny *NH.*24.4; Dioscur. 4.46. See also Forbes (1956:103-4) Goodwin (1982:54) T-B (1998:76)

[vi] ***Madder*** [ἐρύθεδανον] Pliny *NH.*19.47-8; 7.196; 34.94; Dioscur.3.160; Strabo 13.4.14; 12.8.16. See also Forbes (1956:107) Barber (1991:232) Goodwin (1982:64-6) Cannon (1997:76) cf. Mell (1932)

[vii] ***Murex*** [πορφύρα, ἁλουργὴς] Hdt. 4.151; Ar. *Pax* 1173-4, *Ach.* 112, *Pl.* 53; Ath.12.539f, 526c; Pliny *NH.*9.125-142; 35.44-5; Strabo 16.2.23; 17.3.18, etc. See above, n. and Ch.4. T-B (1998:74-5) Forbes (1956:117-20) Barber (1991:228-30) and generally: Bruin (1967) Eaule (1950) Gipper (1964) Reinhold (1970) Schaeffer (1941) Stultz (1990)

[viii] ***Buckthorn/Persian Berries*** [λύκιον] Pliny *NH.*16.124;24.92; 12.113; Dioscur. 1.147; Goodwin (1982:106-115) Cannon (1997:88)

[ix] ***Quince*** [μηλινὸς] Thphr.*Od.*26 cf. Dsc.1.45; Thphr.*HP.*9.18.1; Ath.12.539e; D.*S.*2.53 cf. Dsc.3.137; *Schwyzer* 462B34 (Tanagra iiiBC) Goodwin (1982:106-15) Casevitz (1996:4, 5)

[x] ***Safflower*** [κνῆκος] Thphr. *HP.* 1.13.3; 6.4.5; *CP.* 5.18.4; Arist. *HA.* 350[b]27. See also Goodwin (1982:59-60) Cannon (1997:92) Mell (1932)

[xi] ***Saffron*** [κροκὸς] Pliny *NH.*21.31-4; Ar. Lys. 42-52 etc. (see Ch.4, p.) T-B (1998:72) Goodwin (1982:62) Cannon (1997:94) Llewellyn-Jones (2002b:Ch.9, n.61-83) Barber (1991:233) Casson (19--:152)

[xii] ***Sumach/Young Fustic*** [ῥοὺς] Hp. *Mul.* 1.31; *Nat.Mul.* 32, 34; Thphr. *HP.* 3.18.5; Dsc. 1.108; Sol.41; Antiph. 142.2; Alex. *I.* 27.6; *PCairZen.* 83.4, 702.29 (iiiBC) Pliny *NH.*16.74. See also Goodwin (1982:32, 62, 106-115) Cannon (1997:118)

[xiii] ***Turnsole*** = ἡλιοτρώπιον according to Forbes (1956)

[xiv] ***Weld*** [ὠχρὸς] Pliny *NH.*33.87, 91; 19.48. Cannon (1997:110) Goodwin (1982:63-4) Barber (1991:233) Mell (1932)

[xv] ***Woad*** [ἰσατὶς] Hp. *Ulc.* 11; *Michel.* 832 (Samos ivBC) Thphr. *Sens.* 77; Dsc. 2.184; Pliny *NH.*20.59. Cannon (1997:114) Barber (1991:234-5) Lucas & Harris (1962:151-2) Brunello (1968:14, 45-6) Schaeffer (1976:85, n.7) Forbes (1956:111) Hurry (1930:esp. 51-2) Mell (1932)

Other References with colour attributions from Forbes (1956)
Indigo: Pliny *NH.*33.163; 35.43, 46, 37.84; Dioscur. 5.107; Vit. 7.9.8
Other Blues: Pliny *NH.*22.57-8; 16.77; 21.170
Persimmon: Pliny *NH.*16.124. ***Black***: Pliny *NH.* 16.27. ***Brown***: Pliny *NH.* 15.87

[80] Much of the ancient source material relating to dyestuffs comes from Pliny or various papyri. However, although care must obviously be taken to consider the context within which these references are made (particularly to the economic organisation of dyeing) there is little reason, particularly given the earlier evidence from the Near East (see Campbell-Thompson) to imagine that dyeing practices were not traditional, or indeed subject to significant advance (with the exception of indigo) in the intervening period. In any case, this approach to the evidence is necessarily general, see p.277ff.

Chapter Seven: Colour in the Clothing Regulations of Greek Religious Cults.

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[a] Throughout, the abbreviations *LSCG*, *LSCGS*, and *LSAM*, refer to Sokolowski, (1969) (1962) and (1955) respectively. These volumes provide full text, commentary and references, but not translations, of the regulatory inscriptions.

1. Preface

The emphasis on colour shown by the clothing regulations of Greek cults is of central importance to this thesis as a whole. These regulations are particularly important in studying the significance of colour because they constitute direct evidence of the social (as opposed to purely symbolic) significance of colour in clothing. Most of the information about colour in clothing considered by this thesis has come from sources that can only be classified as 'representational.' In studying these, we are eavesdroppers on the communication between artist and contemporary audience, carried on, to a large extent, in a cultural code that we can now, at best, understand only partially. These regulatory inscriptions, of course, are also communicatory, but they intend to communicate **directly** through the medium of written language, without implicit conventions, and have no motive for the manipulation and exaggeration shown by the representative media of the visual and literary arts.

While the material covered by Chapters Three, Four, and Six has illuminated the **significance** of colour in clothing to a certain extent, this has largely been on an inferential basis. In Chapter Three, it was inferred that a restricted range of specific colours were marked because they were significant, and that pattern was emphasised for the same reason, but although the social context of dedication, and of the inscription of the catalogue, provided some suggestion as to why, this was limited. In Chapter Four, it was possible to be more adventurous, given that a similar range of colours appeared, this time in more illuminating contexts. But there, the dramatic setting of the references, and their problematic relationships to costume and everyday dress, made their evidence simply suggestive: it is possible that the dramatic references constitute conventional colour symbolism as opposed to actual social significance. In Chapter Six, it was suggested that there existed a relatively limited number of colours which would have been more significant than others due to scarcity value.

In contrast, the evidence of these regulations is of the actual significance of actual colours in clothing as worn (not dedicated, displayed or represented) in a particular social and cultural context. Chapter Three allowed the location of colour as an aspect of 'clothing as material culture.' These regulations offer the prospect of locating colour in clothing as part of social communication. Again, the range of colours concerned is both restricted and familiar, and accordingly, more emphasis is placed on discussing how, and why, significance is imparted to colour in the ritual context, and what this can add to our appreciation of colour as an aspect of social communication through dress.

1.1 Introduction

There are extant inscriptions regulating dress from fourteen Greek cults. Although they originate from a wide variety of periods and contexts, this is a significant volume of regulation, indicative of an underlying ritual (and social) concern with dress. There are two basic types of regulations; those without penalties, which require white clothing, and those with penalties which prohibit a (restricted) range of colours. The **colour** of clothing is a central concern of most - ten out of fourteen - of this body of regulations. Therefore, they provide further grounds for regarding colour as among the most socially and

symbolically significant aspects of Greek clothing.[1] They are direct evidence of the social salience and significance of the colours they require or prohibit in clothing, as well as for the actual use of these colours in clothing, and the general (as opposed to literary) use of particular colour terms to denote colour in clothing. Further, they give inferential evidence for the availability and desirability of these colours for clothing.

The purpose of this chapter is not only to present and analyse the regulations, but also to suggest how they should be located within a wider conception of Greek society and religious practice: crucial to their importance for a consideration of colour. Its basic structure is as follows:

Section 2 - presents and translates the texts.

Section 3 - puts forward an explanatory hypothesis concerning the place of such regulations as cultic regulatory activity (arguing that clothing regulations represent exceptions within a wider conception of ritual dress).

Section 4 - summarises the potential effects of the regulations.

Section 5 - relates the proscriptive regulations to the wider social significance of dress (arguing that, although they are not classifiable as 'sumptuary,' the proscriptive regulations can usefully be seen in the broad context of clothing regulation as a complex phenomenon).

Section 6 - considers whether the prominence of colour in these regulations can be explained with reference to the social and actual visibility of Greek clothing, particularly in a group context.

Section 7 - links the social concerns discussed by Section 5 with the question of visibility, and discusses both in terms of the importance of 'community' in general Greek ritual practice.

Section 8 – considers the questions raised these regulations about colour in Greek clothing, and relates them to previous chapters.

[1] See p.119-21

2.1 Summary of Greek cultic clothing regulations:

No.	*Text*	*Date, Cult (location)*	*Subject*	*Penalty*
No.1	*LSCG* 28 *IG* 5(1). 722	6th Century BC Demeter (Sparta)	Dedication of textiles with woven decoration, proscribed	Unspecified
No.2	*LSCG* 32 *SEG.*11.1112	c.500 BC Demeter (Arcadia)	Brightly-coloured clothing, proscribed	Dedicate or destroy garment, official fined.
No.3	*LSCGS* 33 *SEG.*11.1258	3rd Century BC Demeter (Patras)	Purple and flowery clothing, gold, proscribed	Offender considered sacreligious.
No.4	*LSCG* 68 *IG.*5(2).514	3rd Century BC Despoina (Lycosura)	Purple, flowery and black clothing, proscribed	Proscribed items only admitted for dedication
No.5	*LSAM* 35 *Inscr.Prien.205*	3rd Century BC Phratry cult (Priene)	White clothing, prescribed.	None
No.6	*LSCG 65* *IG.*5(1).1390	92 BC Mysteries (Andania)	White clothing prescribed. Decoration,value proscribed for women. Garments, fabrics, prescribed for women	None. Dedication of offending articles, punishment by *gynaikonomos,* under oath to enforce.
No.7	*LSAM* 6 only	1st Century AD Demeter (Cius)	Clean clothing prescribed. Gold proscribed.	None
No.8	*LSAM* 84 only	2nd Century AD Dionysos (Smyrna)	Black clothing proscribed	None
No.9	*LSAM* 14 *SEG.*4.681	3rd Century AD Asklepios (Pergamum)	White clothing prescribed. Gold proscribed.	None
No.10	*LSCGS* 91 *IL.*2.487	3rd Century AD Athene (Lindos)	Clean clothing, white shoes prescribed.	None
No.11	*LSAM* 77 *CIG.*add. 435	No date Unknown (Tlos)	Flowery clothing and transvestism proscribed	Fine

Other clothing regulations:

a.	*IG.*12(1).677	Ialysos (Rhodes) 4th Century BC. Cult of Alectrona **(Concerns shoes and leather).**	*LSCG* 136
b.	*IG.*12 Suppl. P.38 no.126	Eresos, (Lesbos) 2nd Century BC. Deity unknown. **(Concerns shoes and leather).**	*LSCG* 124
c.	*ID.*2180	Delos, 2nd Century BC. Cult of Egyptian deities. **(Concerns wool).**	*LSCGS* 56

2.2 Table of Inscriptional Content (Greek) for comparison with Chapter Three.

No	Person	Garment	Decoration	Colour	Associated Items	*Penalty*
1	-	-	ἔνυφασασθω	-	-	Unspecified
2	(women?)	λῶπος		ζτεραῖον		Dedication
3	(women?)	λωπίον	ποικίλον	πορφυρεάν	χρυσίον ψημυθιουσθαι	καθαπάσθω Purification
4	(women?)	εἵματισμον	ἀνθινὸν	πορφυρεόν μελάνα	ὑποδημάτα δακτυλιον	ἀναθέτω Dedication
5		ἐσθῆτι		λευκῆι		
6	τελουμενοι	εἱμάτισμον		λευκὸν	ἀνύποδετοι	See below
	τ. γυναῖκες	εἱματιοῖς	μηδὲ σαμεῖα	[λευκὸν]	μ. διαφανῆ	
	ἰδιωτιες	χιτώνα εἱμάτιον			λινεον 100 Δρ.	
	ἰ. παῖδες	καλασῆριν / σινδονῖταν εἱμάτιον			1 μνα	
	ι. δουλαῖ	καλασῆριν / σινδονῖταν εἱμάτιον			50 Δρ.	
	ιἐραὶ	καλασῆριν / ὑποδυμα εἱμάτιον	μὴ σκίας		2 μνα	
	ιἐ. παῖδες	καλασῆριν εἱμάτιον			100 Δρ.	
	ιἐραι	ὑποδυτάν εἱματιον γυναικεῖον	σαμεῖα μὴ πλατ. ἡμιδα.			Dedication and punishment by γυναίκονομ
	ιἐ. παῖδες	καλασῆριν εἱματιον			μὴ διαφανῆς	for all of no.6
	ιἐραι	σπιραν		λευκὰ		
	ιἐραι	σκιαν		μὴ πορφυπεαν		
7	πᾶσαι	ιμασι		φαιδρυνθισαι	ἀνιλιποδες	-
8	-	- φαροῦς	-	μελανφαροῦς		-
9	-	ιματιοῖς		λευκοῖς	μητὲ ζώνην ἀνυποδετοῦς	-
10	-	αἰσθητας ὑποδημασὶ		καθαρας ἐν λευκοῖς	ἀνυποδετοῦς	-
11	-	στολὴν στολῆι	ἀνθινήν		γυναικεῖαι	Fine

2.3 Prescriptive Regulations - Nos. 5, 7, 9, 10

No.5

ἔλαχε τὴν ἱερωσύν[ην]
Αναξίδερος Απολλων[ιόυ].
Εἰσίναι εἰς [τὸ]
ἱερὸν ἁγνὸν ἐ[ν]
ἐσθῆτι λευκῆι.

Anaxideros son of Apollonios
obtained the priesthood/sacrifice as his portion.
Go into the pure sanctuary
in white clothing.[2]

This is the earliest of the regulations insisting on white clothing.[3] It is an extremely fragmentary text, thought to refer to the family or *phratry* cult of a goddess, making a clear association between white clothing and the purity of the ritual space. As is the case with all these prescriptive regulations, ἐσθῆτι is a generic term.[4]

No.7

[- - - - - - ταῖς]
δ' ιλασσομέν[αις οἰκῖος]
λαιτριέτω ἀνήρ · **πᾶσαι ἀ-**
νιλίποδες τε [καὶ] ιμασι
φαιδρυνθῖσαι τῷ καλά-
θῳ συνέπεσθε, τὰ δὲ
χρυσία θέτ' οἶκιος · λῆρ-
οι γάρ, τὰ μὲν ἐχθραίνει τοῖ-
σιν δὲ προσα[υ]δᾷ.

[2] Translations of all inscriptions are my own unless otherwise indicated.
[3] For dates and origins of all texts, see table p.234
[4] s.v. LSJ and (Cleland, 1999:Lexicon 38).

and for those who appease
a man must serve the goddess in the temple:
all who take part with the *kalathos*
[shall be] barefoot and in clean clothes
and the gold placed in the temple:
for frippery is hateful
from those you are addressed by.[5]

This inscription is textually confusing. It may refer to a cult of Demeter (given the reference to the *kalathos* and the feminine participle). The requirement for bare feet comes in conjunction with one for clean clothing. It is notable that φαιδρυνθισαι signifies 'clean' in the sense of 'made bright' rather than simply 'free from dirt.' The regulation also appears to contain a proscriptive clause relating to gold.

No.9

[ἀλεκτρυό]νι λευκῶι καὶ [θ]είωι καὶ δ[αδὶ - - - - - -]
[. . . σινδο]νιάσας περικ[α]θαιρέτω ω[- - - - - - - - - -]
[. . εἰ]σπορευέσθω πρὸς τὸν θεὸν τ[ὸν Σωτῆρα Ασκληπίον - -]
[εἰς τὸ μέγα ἐνκοιμητήριον ὁ ἐγκομᾶσθαι βουλόμενος - - -]
[ἐν ιματίοις λευκοῖς, ἀγνοῖς ἐλάας ἔ[ρνεσιν ἐστεμμένος],
[ἔχων μήτε δακτ]ύλιον, μὴτε ζώνην, μ[ήτε χρυσίον, μήτε τὰς]
[τρίχας πεπλεγμένα]ς, [ἀν]υπόδητος - - - - [6]

with a white cockerel, and brimstone and torch . . .
. . . having wrapped in muslin let him purify completely . . .
let him proceed to the god, the Saviour Asklepius
into the big 'grave' anyone who wishes to sleep,
in white clothing, crowned with pure wreaths of olive,
having neither ring, nor girdle, nor gold
nor bound up hair, barefoot - - - -[7]

[5] Last two lines questionable, but seem to concern the inappropinquity of luxury in this context
[6] Lines 5-11 of an extant 1-11.
[7] Lines 5-9 translated by Rutter, pers.comm. Otherwise my translation.

Concerns those proposing to incubate. Again, the clothing section is brief, but this time embedded in a larger fragment of text, concerning other aspects of ritual purity. Like **No.7**, this regulation juxtaposes white clothing with ἁγνος - purity. An additional point of interest is the specification a white cockerel for sacrifice to the god.[8]

No.10[9]

[ὅ]πλα ἀρήια μὴ φέροντας
αἰσθῆτας καθαρὰς ἔχοντας, χωρὶς ἐπικρανίων,
ἀνυποδέτους ἢ ἐν λευκοῖς μὴ αἰγείοις ὑποδήμασι
μηδέ τι αἴγιον ἔχοντας
μηδὲ ἐν ζώναις ἄμματα

Not bringing weapons of war
having clean clothing, without headresses
barefoot or shod in white shoes not of goatskin
and having nothing of goatskin
and not bound with a girdle

The final prescriptive inscription requires clean clothing and again the word for 'clean' as well as meaning physically clean, has other, more common uses to denote 'pure' or 'unadulterated.'[10] Again part of a longer text, this time clearly concerned with rather elaborate requirements for both moral and ritual purity.

2.3a. Conclusions on the prescriptive regulations:

In general, the coloured clothing requirements of these prescriptive regulations are straightforward. The basic prescription is for white clothing (or in two cases clean, with the sense of 'bright' or 'pure'). Sometimes, as in **Nos. 5** and **7**, this is the only instruction to participants in very short texts, while in the other instances, the requirement for white clothing is one among many. Only in **No. 5** are bare feet and white clothing not found in conjunction. In short, the intent of this type of regulation seems to be informative or definitive rather than restrictive - the very brevity of the clauses about clothing suggests that they are clarifying a situation rather than establishing one, and there is no provision in any of these regulations for enforcement. Indeed, it is possible that such brief mentions of white clothing might

[8] See also **No.4** for white sacrifices.
[9] Lines 6-10 of an extant 1-25

well have once formed part of other extant fragmentary inscriptions. The nature of the surrounding requirements generally makes it likely that this particular dress requirement was occasioned by considerations of ritual purity, something that is also supported by the close association with ἁγνος in two cases.[11]

2.4 Andania: Pre- and Proscriptive Regulation - No. 6

No.6

Ὅρκος ἱερῶν καὶ ἱερᾶν · ὁ γραμματεὺς τῶν συνέδρων τοὺς 1
γενηθέντας ἱεροὺς ὁρκιζάτω παραχρῆμα, ἂμ μή τις ἀρρωσ[τεῖ] 2

[ἱερῶ]ν καιομένων, αἷμα καὶ οἶνον σπένδοντες, τὸν ὅρκον τὸν ὑπογε- 3
γραμμένον · ὀμνύω τοὺς θεούς, οἷς τὰ μυστήρια ἐπιτ[ε]- 4

[λεῖ]ται, ἐπιμέλειαν ἔξειν, ὅπως γίνηται τὰ κατὰ τὰν τελετὰν 5
θεοπρεπῶς καὶ ἀπὸ παντὸς τοῦ δικαίου, καὶ μήτε αὐ- 6

[τ]ὸς μηθὲν ἄσξημον μηδὲ ἄδικον ποιήσειν ἐπὶ καταλύσει τῶν 7
μυστηρίων μηδὲ ἄλλωι ἐπιτρέψειν, ἀλλὰ κατακολου- 8

θήσειν τοῖς γεγραμμένοις, ἐξορίσιεν δὲ καὶ τὰς ἱερὰς καὶ τὸν ἱερῆ 9
κατὰ τὸ διάγραμμα · ἐυορκοῦντι μέν μοι εἴη ἃ τοῖς εὐ- 10

σεβέιος, ἐφιορκοῦντι δὲ τἀαντια · ἂν δέ τις μὴ θέλει ὀμυνυειν, 11
ζαμιούτω δραχμαῖς χιλίαις καὶ ἄλλον ἀντὶ τούτου κλαρωσά- 12

τω ἐκ τᾶς αὐτᾶς φυλᾶς · τὰς δὲ ἱεπὰς ὁρκιζέτω ὁ ἱερεύς καὶ οἱ ἱεροὶ 13
ἐν τῶι ἱερῶι τοῦ Καρνείου ταῖ πρότερον ἁμέραι τῶν μυστη- 14

ρίων τὸν αὐτὸν ὅρκον, καὶ ποτεξορκζόντω · πεποίημαι δὲ καὶ ποτὶ 15

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[10] For attribution probably largely based on the concern with goatskin, see Sokolowki *LSCGS* 91, Parker (1983:37s.v. LSJ) Used throughout this inscription for all types of purity, moral as well as physical.
[11] See Section 7.1, p.271f

τὸν ἄνδρα τὰν συμβίωσιν ὁσιως καὶ δικαίως· τὰν δὲ μ[ὴ] 16

θέλουσαν ομνύειν ζαμιούντω οἱ ἱεροὶ δραχμαῖς χιλίας καὶ μὴ 17
ἐπιτρεπόντω ἐπτελεῖν τὰ κατὰ τὰς θυσίας μηδὲ μετ[έ] 18

χειν τῶν μυστηρίων, αἱ δὲ ὁμόσασαι ἐπιτελούντω · οἱ δὲ γεγενημένοι 19
ἱεροὶ καὶ ἱεραὶ ἐν τῶI πέμπωι καὶ πεντηκοστῶι 20
ἔτει ὁμοσάτω τὸν ἀυτὸν ὅρκον ἐν τῶI ἐνδεκάτωι μηνὶ πρὸ τῶν 21
μυστηρίων. παραδόσιος · τὰν δὲ κάμτραν καὶ τὰ 22

βιβλία ἃ δέδωκε Μνασίστρατος, παραδιδόντω οἱ ἱεροὶ τοῖς ἐπικα- 23
τασταθεύντοις, παραδιδόντω δὲ καὶ τὰ λοιπὰ ὅσα 24

ἂν κατασκευασθεῖ χάριν τῶν μυστηρίων. στεφάνων · στεφάνους 25
δὲ ἐχόντω οἱ μὲν ἱεροὶ καὶ αἱ ἱεραὶ πῖλον λευκόν, 26

τῶν δὲ τελουμένων οἱ πρωτομύσται στεγγίδα · ὅταν δὲ οἱ ἱεροὶ 27
παραγγείλωντι, τὰμ μὲν στεγγίδα ἀποθέσθωσαν, 28

στεφανούσθωσαν δὲ πάντες δάφναι. εἱματισμοῦ · οἱ τελούμενοι 29
τὰ μυστήρια ἀνυπόδετοι ἔστωσαν καὶ ἐχότω τὸν 30

εἱματισμὸν λευκόν, αἱ δὲ γυναῖκες μὴ διαφανῆ μηδὲ τα σαμεῖα ἐν 31
τοῖς εἱματίοις πλατεύτερα ἡμιδακτυλίου, καὶ αἱ 32

μὲν ἰδιώτιες ἐχότω χιτῶνα λίνεον καὶ εἱμάτιον μὴ πλείονος ἄξια 33
δραχμᾶν ἑκατόν, αἱ δὲ παῖδες καλάσηριν ἢ σιν- 34

δονίταν καὶ εἱμάτιον μὴ πλείονος ἄξια μνᾶς, αἱ δὲ δοῦλαι καλάσηριν 35
ἢ σινδονίταν καὶ εἱμάτιον μὴ πλείονος ἄξια δρα- 36

χμᾶν πεντήκοντα · αἱ δὲ ἱεραὶ αἱ μὲν γυναῖκες καλάσηριν ἢ ὑπόδυμα 37
μὴ ἔχον σκιὰς καὶ εἱμάτιον μὴ πλείονος ἄξια δύο 38

μνᾶν, αἱ δὲ [παῖδε]ς καλάσηριν ἢ εἱμάτιον μὴ πλείονος ἄξια δραχμᾶν 39
ἑκατόν · ἐν δὲ ταῖι πομπαῖι αἱ μὲν ἱεπαὶ γυναῖκες ὑποδύ- 40

ταν καὶ εἱμάτιον γυναικεῖον οὖλον, σαμεῖα ἔχον μὴ πλαρτύτερα 41
ἡμιδακτυλίου, αἱ δὲ παῖδες καλάσηριν καὶ εἱμάτιον μὴ δια- 42
φανές · μὴ ἐχέτω δὲ μηδεμία χρυσία μηδὲ φῦκος μηδὲ ψιμίθιον 43
μηδὲ ἀνάδεμα μηδὲ τὰς τρίχας ἀνπεπλεγμένας μηδὲ ὑπο- 44

δήματα εἰ μὴ πίλινα ἢ δερμάτινα ἱερόθυτα · δίφρους δὲ ἐχόητω αἱ 45
ἱεραὶ εὐσυίνους στρογγύλους καὶ ἐπ᾽ αὐτῶν ποτικεφάλαια 46

ἢ σπῖραν λευκά, μὴ ἔχοντα μήτε σκιὰν μήτε πορφύραν · ὅσα δὲ δεῖ 47
διασκευάζεσθαι εἰς θεῶν διάθεσιν, ἐχότω τὸν εἱματισμὸν 48

καθ᾽ ὃ ἂν οἱ ἱεροὶ διατάξωντι · ἂν δὲ τις ἄλλως ἔχει τὸν εἱματισμὸν 49
παρὰ τὸ διάγραμμα ἢ ἄλλο τι τῶν κεκωλυμένων, μὴ ἐπιτρεπέ - 50

τω ὁ γυναικονόμος καὶ ἐξουσίαν ἐχέτω λυμαίνεσθαι, καὶ ἔστω ἱερὰ 51
τῶν θεῶν. ὅρκος γυναικονόμου · οἱ δὲ ἱεροὶ ὅταν καὶ αὐτοὶ ὀμό- 52

σωντι, ὁρκιζόντω τὸν γυναικονόμον ἐπὶ τῶν αὐτῶν ἱερῶν, εἶ μὰν 53
ἔξειν ἐπιμέλειαν περί τε τοῦ εἱματισμοῦ καὶ τῶν λοιπῶν τῶν 54

ἐπιτεταγμένων μοι ἐν τῶι διαγράμματι. πομπᾶς · ἐν δὲ ταῖι 55
πομπᾶI ἁγίστω Μνισίστρατος, ἔπειτεν ὁ ἱερὺς τῶν θεῶν οἷς 56

τὰ μυστηρία γίνεται μετὰ τᾶς ἱέρεας, ἔπειτα ἀγωνοθέτας, ἱεροθύται, 57
οἱ αὐλεταί · μετὰ δὲ ταῦτα αἱ παρθένοι αἱ ἱεραὶ καθὼς ἂν λά- 58

χωντι, ἄγουσαι τὰ ἄρματα ἐπιειμένας κίστας ἐχούσας ἱερὰ μυστικά· 59
εἶτεν ἁ θοιναρμόστρια ἁ εἰς Δάματρος καὶ αἱ ὑποθοιναρ- 60

μόστριαι αἱ ἐμβεβακυῖαι, εἶτεν ἁ ἱέρεια τᾶς Δάματρος τᾶς ἐφ' ἱππο- 61
δρόμωι, εἶτεν ἁ τᾶς ἐν Αἰγίλα · ἔπειτεν αἱ ἱεραὶ κατὰ μίαν κα- 62

θώς κα λάχωντι, ἔπειτεν οἱ ἱεροὶ καθώς κα οἱ δέκα διατάξωντι · ὁ δὲ 63
γυναικονομός κλαρούτω τάς ἱερὰς καὶ παρθένους καὶ ἐπιμέλειαν 64
ἐχέτω ὅπως πομπεύωντι, καθώς κα λάχωντι · ἀγέσθω δὲ ἐν ταῖι 65
πομπᾶι καὶ τὰ θύματα, καὶ θυσάντω τᾶΙ μὲν Δάματρι σὺν ἐπίτοκα, 66

Ερμᾶ- 67
νι κριόν, Μεγάλιος θεοῖς δάμαλιν σὺν, Απόλλωνι Καρνείωι κάπρον, 68

᾽Αγναι οἶν. σκανᾶν · 69

No.6[g]

The oath of the men and women who have been chosen to be hierophants : Let the secretary of the *synhedroi* administer the oath at once to the holy men, unless someone objects, when the victims have been burned pouring out libations of blood and wine.Let them swear the following oath: 'I swear that I will fulfil my responsibilities to the gods for whom the Mysteries are celebrated so that the ritual will be done in a manner appropriate to the gods an with all justice. I will do nothing shameful or unjust to hinder the Mysteries, nor will I permit another to do so. I will obey the regulations, and I will administer the oath to the women who have been chosen as hierophants and to the priest according to this decree. If I am faithful to my oath may I enjoy the blessings of piety. May I be cursed if I do not obey.'

If anyone does not wish to swear, let him be fined 1000 drachmas, and let another be chosen by lot in his place from the same tribe. Let the priest and the men administer the same oath to the female hierophants in the Temple of Karneios on the day before the Mysteries, and in addition let the women swear: 'I have lived with my husband in accordance with human and divine law.' If any woman does not wish to swear, let the priests fine her 1000 drachmas, and she shall be prohibited from participating in the sacrifices, and she shall have no share in the Mysteries. The ones who swear shall participate. In the 55th year in the 11th month before the Mysteries let the men and women who have been chosen to be hierophants swear the same oath.

[g] Trans. Garland (1981) with my additions in underline. Where line numbers are given in the Chapter, they refer to the Greek text.

The tradition: Let the men give the chest and the books which Mnisistratos gave to the ones selected, and let them give in addition whatever is necessary for the Mysteries.

The garlands: Let the men who are hierophants wear garlands and the women [who are hierophants] white headdresses, and the ones who have completed the preliminary initiation, tiaras. When the men give the word, let them put aside their tiaras, and let everyone be crowned with laurel.

Clothing: Let the ones completing the Mysteries stand without shoes, wearing white clothing; women shall not wear transparent robes nor have bands on their *himatia* wider than one third of an Female initiates shall wear a linen *chiton* and a *himation* not costing more than 100 drachmas, and their daughters shall wear a *kalaseris* or a *sindonita* and a *himation* costing no more than one mna, and their slaves shall wear a *kalaseris* or *sindonita* and a *himation* costing no more than fifty drachmas. The female hierophants shall wear a *kalaseris* or a *hypoduma* without bands, and a *himation* costing no more than two mnai, and their daughters shall wear a *kalaseris* or *himation* costing no more than 100 drachmas. In the procession, the female hierophants shall wear a *hypoduta* and a woman's *himation* of wool, having bands no wider than one third of an inch, and their daughters a *kalaseris* and a non-transparent *himation*.

[Women] shall not wear gold jewelry or rouge or face powder, or head bands, nor shall they braid their hair or wear shoes, unless they are made of felt or consecrated leather. The female hierophants shall have carriages [chairs] with round sunshades and cushions and white curtains. They shall not have purple parasols. Whatever is needed for the arrangements for the ceremony in honour of the gods, let them dress as the men selected as hierophants shall decide. If any woman dresses in any other way, or wears anything which is contrary to the regulations, or any other thing forbidden, the *gynaikonomos* shall not permit it, and he shall have authority to punish her, and the forbidden items shall be sacred to the gods [dedicated].

Oath of the *gynaikonomos*: When the men chosen to be hierophants have taken the oath, let them administer the oath to the *gynaikonomos*, and in addition to the oath of the hierophants, let him swear: 'I will see that the dress regulations and the rest of the things required by this decree are enforced.'

The procession: Let Mnasistratos lead the procession, then the priest of the gods for whom the Mysteries are held, with the priestess, then the judges of the games, the slayers of the victims and the flutists. After these, the maidens and female hierophants chosen by lot to lead the carriages in which the chests containing the sacred objects have been placed. Next the women in charge of the feast to Demeter, and their assistants, and then the priestess of Demeter of the Hippodrome and the priestess of Demeter of the Aigilia. Then the female hierophants, one by one as chosen by lot, and then the male hierophants as the Ten shall direct. The *gynaikonomos* shall choose the order of march for the female hierophants and the girls by lot, and it shall be his charge that they march as determined by lot.

He shall lead the sacrificial victims in the procession: and let them sacrifice a pregnant sow for Demeter, a ram for Hermes and a heifer for the Great Gods, a boar to Apollo Karneios and a sheep to Hagna . . . . . .

In contrast to the other regulations with prescriptive content, the clothing section of **No.6** is twenty seven lines long, and contains detailed clothing pre- and proscriptions for each type of female participant.[12] However, its colour prescription, which refers to all participants, is much shorter and more straightforward. Again, the clothing term used is generic, this time in clear contrast to the very specific terms used in subsequent lines.

As well as the prescription of white, it also contains proscriptions - not of particular colours of garments, but of decoration.[13] Women 'completing the Mysteries' are not allowed bands of colour on their garments wider than approximately a third of an inch.[14] Female hierophants are not allowed to wear undertunics with stripes, and in the procession may not wear *himatia* with bands wider than one third of an inch. What is striking about these proscriptions is their place within a clear hierarchy of permissible clothing for every 'ritual grade' of female participant, along with their daughters and slaves, detailing the form, weight, and fabric of the garments, but focussing particularly on their value.[15] Other colour requirements specify white curtains, and prohibit purple cushions. All this detailed regulation is under the authority of the *gynaikonomos*, who is to ensure that any forbidden items are dedicated, and the women punished, though how is not specified. The *gynaikonomos* himself must swear as a specific and additional part of his oath to enforce the dress regulations, and faced a stiff penalty for refusing the oath.[16]

2.5 Proscriptive Regulations – Nos. 1, 2, 3, 4, 8, 11

No.1[17]

- - -]άντο μεδὲ το εμῶ
[ἐνυφ]ασάσθο, τὶ μὲ πο[λι] -
[ανόμ]ος ἔθεκε μὲ χέπαῃ τιμ-

and they [the women] must not weave in
anything which is not prescribed
by the *polianomos*:

This early regulation appears to control the decoration of textiles for dedication, or perhaps for ritual use.

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[12] Lines 29-55 See table, p.235
[13] See table, p.235. This inscription is discussed in more detail by Section 5
[14] This may be questionable, since some of the clauses would then be repetitions. Perhaps *oi teloumenoi* would be better translated 'those completing the Mysteries *for the first time*? See below, n.66
[15] See p.258f
[16] See line 12f
[17] Lines 1-3 of 6

No.2

[Ἐικὰν γυ]νὰ ἐσετοι ζτεραῖον λῶπος,
[ἰερὸ]ν ἔναι τᾶI Δάματρι τᾶι Θεσμοφόροι·
[εἰ δὲ] μὲ ὑνιερόσει, δυ[σ]μενὲς ἔασα ἐπε ἔργο
[κακῶ]ς ζ' ἐξόλοιτυ, κὰ ὄζις τότε δαμιο οργῆ
[ἀφάε]σται δραχμὰς τριάκοντα· εἰ δὲ μὲ ἀφάετοι,
[ὀφλῆν] τὰν ἀσέβιαν· ἔχε ὄδε κῦρος δέκο ἔτεα· ἔναι
[δ' ἰερὸν] τόδε.

If a woman wears a brightly-coloured robe,
it is to be consecrated to Demeter Thesmophoros.
If she does not dedicate it,
being ill-disposed towards the rite,
let it perish/be destroyed[18]
and whoever is then demiourgos,
let him pay/exact thirty drachmas.
If he does not exact it he is guilty of impiety.
Let this [law?] have authority for ten years.
This is sacred.[a]

The earliest of the proscriptive regulations to specifically refer to garments, this regulation concerns the wearing of a specific type of clothing whose nature is uncertain. Mills (1985:258) translates it as 'brightly coloured' but a number of alternative derivations have also been advanced, although it was certainly an unusual garment.[19] It is notable that the wearing of this particular garment is **not prohibited**, but if it is worn, it must be dedicated to the goddess. The penalty is consequent upon failing to do so, whilst the official (*demiourgos*) must then either fine the offender, or possibly pay a fine himself. Failure to exact the fine, as a penalty for failing to dedicate the garment, renders the *demiourgos* guilty of impiety. This complex arrangement for punishment is important for two reasons. The first is that rather than attempting to prevent the wearing of this garment, the cult appears to be aiming to 'harness' the desire to do so, and the fact that such a desire existed is attested by the regulatory attention given it.[20] The second is that the

[18] Rutter, pers.comm. for the suggestion that the penalty of destruction refers to the garment and not its wearer, which would seem to resolve the problems with this word.
[a] Trans. Mills (1984) with my additions in italics. For comment on content, see above, Section 5.2
[19] See n.128 below & Cleland (1999: Lexicon p.38)
[20] See Section 5, p.256-66

dual penalties imply motives for disobedience on the part of both wearer and official. One unique feature of this regulation is that it contains a statement of its intended duration. [21]

No. 3

A. .....[Δα] -
ματρίοις τὰς γ[υ]ν[αῖ] -
κες μήτε χρυσίον ἔ -
χεν πλέον ὀδελοῦ ὀλ ˙
κάν, μηδὲ λωπίον ποικί -
λον, μήτε πορφυρέαν,
μήτε ψημυθιοῦσθαι,
μήτε αὐλῆν. εἰ δέ κα
παρβάλληται, τὸ ι -
ερὸν καθαπάσθω
ὡς παρσεβέουσα.

β. Δαματρί[οις - -

A. ..... at the Damatrieia,
Women may have neither gold
more than one obol in weight,
and not multi-coloured[22] clothing,
nor purple,
nor be painted with white lead
nor a flute. If any of these
are brought in, the sanctuary
shall be purified
on the grounds that she is committing sacrelige.

B. Damatrieia - -

[21] cf. **No.2**, line 9 and see Section 5 below.
[22] See p.128, 136 for translation and discussion of this term

This is directed against two particular colours of garment, in conjunction with gold worth more than one obol, white lead cosmetics, and flutes.[23] The consequence of bringing these into the sanctuary is that the wearer will be considered to have committed sacrilege, so that the sanctuary will have to be purified.[24]

No.4

Δ ε σ π ο ί ν α ς

[- - - - - - - -]μὴ ἐξέστω
παρέρπην ἔχοντας ἐν τὸ ἱερον τᾶς
Δεσποίνας **μὴ χρ[υ]σία ὅσα μὴ ιν ἀνά-**
θεμα, μηδὲ πορφύρεον εἱματισμὸν
μηδὲ ἀνθινὸν μηδὲ [μέλ]ανα μηδὲ ὑπο-
δήματα μηδὲ δακτύλιον · εἰ δ' ἄ τις
παρέῃθη ἔχων τι τῶν ἀ στάλα [κ]ωλύει,
ἀναθέτω ἐν τὸ ἱερὸν · μηδὲ τὰς τ[ρί]-
χας ἀμπεπλεγμένας, μηδὲ κεκαλυμ-
μένος · μηδὲ ἄνθεα παρφέρην · μηδὲ
μύεσθαι . . . . . .κυόνσαν μηδὲ θη-
λαζομέναν · τὸς δὲ θύοντας πὸς θύ[η]-
σιν χρέεσθαι · ἐλαίαι, μύρτοι, κηρίοι,
ὁλοαῖς αἰρολογημέναις, ἀγάλματι,
μάκωσι λευκαῖς, λυχνίοις, θυμία-
μασιν, ζμύρναι, ἀρώμασιν · τὸς δὲ θ[ύ]-
οντας τᾶΙ Δεσποίναι θύματα θύ[ην]
θήλεα λευκ[ὰ . .]ο . . . ος καὶ κ-
- - -

[23] In all these regulations, I would regard gold as ornament as opposed to clothing.
[24] For purple as worn by Demeter, see Plut.*Dion*.56 and Burkert (1985:186, n.32) For other comments on this regulation, Seaford (1998:133, n.29) Mills (1984:258) Does sacrelige equal impiety with the personal consequences this seems to imply? For discussion of impiety as a sanction, see Mills (1984:261). Also Dem.59.85-6, Garland (1981:150-3)

Belonging to Despoina . . . . . .[25]
Let it not be permissible for those to pass in who are bringing into the sanctuary
of Despoina any gold objects which are not intended for dedication
nor purple, flower-decorated[26] or black clothing,
nor sandals, nor a ring.
If anyone does enter with any of these things which the stele prohibits,
let *her* dedicate it in the sanctuary.
Nor (let it be permissible to enter) with the hair
braided, nor with the head covered.
Nor (let it be permissible) to bring in flowers,
nor for a woman who is pregnant or breast-feeding to become an initiate . . .
And let those making sacrifices use for sacrifice olive, myrtle, honeycomb
barley groats cleared of darnel, a figurine, white poppies, lamps,
(various kinds of) incense, myrrh, and aromatics.
And let those making sacrifice to Despoina *sacrifice* white *female* . . . [27]

Initial specification that anyone intending to bring in proscribed items will not be permitted to do so, but after the initial listing, the regulation requires that any such items that have been brought in must be dedicated.[28] Gold is again the first item of concern, and only gold intended for dedication is permitted. In fact, the form of the sentence makes it possible that the 'unless intended for dedication' clause is supposed to extend to the other items also. Interestingly, a subsequent line also prohibits bringing flowers into the sanctuary, although a further clause specifies white poppies as being among the acceptable sacrifices, as are white female victims - the text breaks off before specifying the type.[29] This regulation does not contain the elaborate penalties for failure to dedicate proscribed items found in **No.2**, but on the other hand, it does make intention to dedicate the item a condition of entry with it.

No.8

μηδὲ μελανφάρους προσίναι βωμοῖσι ἄνακτ[ος],[30]

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[25] Trans. with commentary Loucas (1994) My additions in italics.
[26] cf. ἀνθινην in **No.11**.
[27] White as an appropriate colour for sacrifices, see **No.4** and **No.9**
[28] See p.223 Sokolowski (1969, LSCG 68) & Loucas (1994:98) Seaford (1998:133, n.27, 28) and p.260-71.
[29] cf. above, **No.9**.
[30] Line 10 of an extant 1-19, concerned with ritual and moral purity

Simply prohibits initiates from approaching the altar in black clothes.[31] The rest of the regulation concerns ritual and moral purity, and consists largely of Pythagorean and Orphic requirements. The text breaks off on the point of another possible dress requirement, but no penalties are mentioned in the extant section. In this respect, and in the explicit associations with purity issues, this is an atypical proscriptive regulation.

No.11

[- - -]ἔχων **στολὴν ἀνθινήν**, ἄλλος μὴ ἀγειρέτω μ[ήτε - - - - -]
[- μηδεὶ]ς τούτων ἐγ γυνακείαι στολῆι · ἐὰν δέ τις παρα[βαίνηι]
[καὶ εἰ]ς τὸ ἱερὸν ἔλθηι, ἀποτινέτω ἡμέρας ἑκάστης [- - - - - -]

- - - having flower-decorated clothing, others must not gather together, nor - - - -
not one of these in women's clothes. And if anyone should transgress
and go into the sanctuary, he must pay each day - - - - - -

An extremely fragmentary undated regulation from an unknown cult. It appears to proscribe ἀνθινὴν: dyed or flower-decorated clothing, and certainly prohibits men from dressing in women's clothes.[32] The regulation makes provision for a now unspecified daily fine imposed on transgressors. However, the fragmentary state of the text and its lack of context make its intent unclear, although the repetition of ἀνθινὴν is interesting when compared to **No.5**.

2.5a. Conclusions on Proscriptive Regulations

It is significant that in most of these proscriptive regulations, coloured clothing is treated along with, and in similar terms to, gold. The implications of this, in terms of sumptuary connotations and the regulation of status, are dealt with in detail below. Certainly at first sight, the similarity of attitude towards purple and gold is not surprising, and decorated clothing has been discussed in detail above.[33] To sum up, it has emerged that the clothing regulations of Greek religious cults deal with a limited number of colours. White is prescribed. Purple, decorated and black clothing are proscribed. The requirements are summarised in English and Greek by the tables above.

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[31] Mourning, see p.169-80
[32] Sokolowski (1955:176) says that the prohibition of transvestitism was to prevent men from infiltrating women only cults. e.g. Ar.*Thes.* (See p.148ff) Also cites evidence for ritual transvestitism of both sexes in some Eastern cults: Macrob. *Sat.*3.8 : Serv. *Aen.* 2.632 ; Apul. *Met.* 8.24 ; Luc. *de dea Syria* 15.26.51 : Aug. *Civ.Dei.* 7.26 ; Eus. *v. Const.* 3.55
[33] See p.128-32, 134-37, 148-51, 171-72

3. Greek Cultic Clothing Regulation – An Explanatory Hypothesis:

These regulations concerning clothing constitute only a small proportion of the extant inscriptions concerning Ancient Greek religious cults. The range of other subjects to which this corpus relates is very wide, covering almost every conceivable aspect of the day to day existence of cults, their sanctuaries, personnel and participants.[34] Such texts survive from all over the Greek world, and range in date from the archaic period to the adoption of Christianity. Nevertheless, it should be emphasised that we now possess inscriptions (of any sort) from only a fraction of the cults which proliferated across this huge spatial and temporal region, and it should not be forgotten that formal regulation in the form of inscribed rules may have been the exception rather than the norm in general, not just in the specific case of clothing.

Given the relative scarcity of regulations concerned with clothing, however, it seems probable that the majority of cults and festivals did not attempt formal regulation of dress. Clothing regulations are exceptional, and in light of this, the relationship between cult practice and cultic regulation becomes crucial for our understanding of their significance. Formal codification and publication of rules about dress seems only to have been undertaken in certain circumstances, tempting us to view clothing regulation as a phenomenon, to assume that some linkage - ideological rationale or social project - underlies and connects the specific regulations.[35]

At the very least these regulations might be taken as evidence for a legislative concern with dress similar to that known from many later milieux.[36] However, as the table on page 223 indicates, there are clear objections to seeing the regulation of clothing in cult as any kind of unified phenomenon. After all, the eleven inscriptions range in date from the 6th century BC to the 3rd century AD, and in geographical origin from Arcadia to Asia Minor. When one adds the disparate social and legislative contexts of the various *poleis* involved, not to mention the variety of cults they concern, there seems little reason to treat these regulations as a cohesive group.

A further objection to viewing these regulations as indicative of a wider, social, legislative or regulatory concern with clothing is that these are cultic regulations, and not sacred laws: a vitally important distinction. [37] These regulations relate only to participants in specific cults; those who wished either to enter the *temenos*, or to take part in a festival or procession organised and controlled by a cult.[38]

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[34]Nemeth (1994: esp. 64) and in general, Hagg (1994). Sokolowski, in his standard works on the subject (1959, 1962, 1969) reproduces more than three hundred such inscriptions.

[35] See below, p.264 for Mills (1984) on the regulation of women's dress as a social project. Readers who are not familiar with this article should note that it is a major concern of this Section, and of Section 5, to emphasise that, contrary to its contentions, it is not necessary to see these regulations primarily as instances of the social control of women, particularly given their cultic context and concern with colour, which Mills tends to de-emphasise. It has seemed better to refer to and discuss the opinions of other recent commentators – notably Parker (1983) Culham (1986) Osborne (1998) and Ogden (2002) – in context, see Sections 5-8.

[36] Hunt (1996:17-41) for a summary history – e.g. Rome, feudal Japan, medieval Europe, early modern America. See p.251-61 esp. 251-2, for discussion.

[37] c.f. Mills (1984:255-65)

[38] See **Nos. 5 & 10**, *LSCG* 136, cf. The funerary laws of Iulis (*LSCG* 97: *IG*.12(5).593) and Gambreion (*LSAM* 16: *Syll.*[3] 1219)

They have no wider force, being the creation of the cults as institutions and relating only to territory and occasions under their control. Nor do they concern the everyday behaviour of participants, but only their clothing on those occasions on which they wished to enter its sanctuary or participate in its activities. A rather flippant, but perhaps accurate, comparison would be with the dress codes established by modern clubs.

Such dress codes, of course, have some relationship to wider dress habits, but do not attempt to alter them. Instead, and unlike the informal ordering of everyday dress, they represent deliberate decisions about the dress (and by implication, comportment) of the club members. Their requirements may be prescriptive – 'black tie,' 'formal wear' – or proscriptive – 'no jeans or trainers.' Although, on a superficial level, such codes aim to regulate the appearance of the members, they can be seen to have a deeper significance. They require entrants to be aware of the specific nature of the club they wish to enter, and necessitate a certain degree of preparation for doing so. A dress code also makes an indirect statement about the social context to which the community of members is expected to aspire and conform. Crucially, for this comparison, the statements and relationship of such codes to ordinary dress habits are 'understood.' Rarely will they cover every aspect of dress, but rather restrict themselves to a limited number of indicative features. Inferences about the nature of wider dress habits can be made on the basis of the requirements of dress codes, as long as it is remembered that the codes are the result of conscious decision, not of the social 'discourse' that is a feature of sumptuary law and other 'legal' orderings of dress.[39]

In this sense the cultic clothing regulations can profitably be contrasted with Greek funerary legislation, examples of which also contain clothing prescriptions.[40] These do relate to the citizens of particular *poleis* and in contrast to the cultic regulations can, I believe, be taken as evidence of some wider social and political concern with dress, since they are applicable to and made by, or on behalf of, an entire social grouping.[41]

If the temptation to take these regulations as evidence of a wider social project should be resisted, one might equally tend towards the other extreme. It could be argued that these inscriptions are exceptional, unique and unconnected, of interest in themselves, but not fit subjects for comparison or extrapolation: that most religious cults had no concern with the clothing or accoutrements of their participants. Given the individual and distinct forms taken by Greek cults, it might not be unreasonable to regard these regulations as restricted not only to their own social contexts, but also to peculiarities of each particular cult and its practice.

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[39] Kaiser (1985:197-209 & 282-3); Culham (1986:245); Hunt (1996:3, 13,79 et. al.)

[40] Iulis, Gambreion, see n.10 above. Also Gortyn (*LGS* II, 37) Delphi (*LGS* II, 74c) Nisyros (*LGS* II, 93A = *Syll.*[3] 1220 c.f. Plato *Laws* 12.958d). Stears (1998:117) Dem.43.62-3: Plut. *Solon* 21; Cic. *De Leg.*2.64 Diod. 11, 38; Stob.*Flor.*94.40

[41] One might also adduce here the existence of the *gynaikonomos* as a regulator of wider Greek dress habits on a social level. See p.259 n.69

Such a view has much to recommend it, gains some support from the relative scarcity, and cannot ever be entirely dismissed. However, it demands that the shared areas of concern, which link most of the regulations, be ascribed to coincidence, and does not address the ubiquitous role of dress as an aspect of ritual behaviour. [42] Nor does it come to grips with the relationship between cult practice and regulation, but instead requires the assumption that the two are identical, that cult practice could only be formally conceptualised in regulations, or was only significant in that form. While it provides an adequate explanation of why we possess so few actual inscribed regulations relating to clothing, it is inherently unsatisfactory because it advances no insight into why there are **any**.

Therefore, I argue for a perspective mid-way between these two extremes. The delineation of sacred from profane is part of the essential nature of religious cult, both in terms of ritual practice and of cult structures or sanctuaries. Most of the cultic regulations, including those dealing with clothing, have some concern with this delineation, and many of the specific clothing requirements have some connection to purity and pollution. [43] Moreover, as well as the more or less defined concepts of ritual pollution and purity, Greek thought and religious practice were also concerned with appropinquity of speech and behaviour.[44]

These regulations, regardless of the current deficiencies in our understanding of them, are themselves evidence of the fact that dress had **some** ritual importance in Greek culture, reinforced by the explicit connections with ritual purity in many of the regulations.[45] Even in a secular society such as our own, where formal regulation of clothing now approaches the inconceivable, clear ideas of appropriate dress for ritual occasions persist. "Mechanisms of 'ritual' designate what come close to being virtually compulsory dress conventions for weddings, funerals and other ritualised social relations and activities; few, for example, violate the ritual requirement to wear black at funerals." (Hunt, 1996:62) Anthropology has recognised appropinquity of dress as one of the first aspects of public social behaviour learned by children, while awareness of the proper forms of dress for ritual occasions is generally easily transmitted in the form of tradition and customary practice, being effectively reinforced by social censure.[46]

It would not, then, be overstepping the bounds of probability to suggest that Greek culture and society admitted some ideas of appropriate dress for ritual. Traces remain in literature, and although such ideas would almost certainly have varied with time and place, it is the existence of the concept that is crucial, rather than its details.[47] It is not difficult to imagine situations in which the joint mechanisms of

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[42] See p.256-66

[43] Hagg (1994) various articles: Parker *'Miasma'* (1983) is the definitive and informative treatment. See p.236-39, 271-75

[44] Burkert (1985:73, 199, 248, 273) et al. and below, p.274 (comportment)

[45] This chapter concentrates on garments and colour, but related features shared by both types of regulation include bare feet, unbound hair, and frequently the absence of rings and girdles.

[46] Barnes & Eicher (1992) Butler (1990) Flugel (1950) Laver (1969) Weinburg (1968)

[47] Leather, see p.223, **a.** & **b.** Parker (1993:52) Plato, *Laws* 12.956a ; Philostr. 8.7.4 ;Xen. *Anab.* 4.5.35. Bare feet, Parker (1993:56) Heckenbach (1911) & p.156, T.40. White – Plato, *Laws* 12.956b ; Ath. 15.686f. & p.151, 154, T.14-20: Black - Sokolowski (1955:43) Radke (1936:24) Parker (1993:292) See p. 164, 169-70, T.1-13

customary practice and social censure might not have sufficed. Cults whose dress requirements were unusual, or which contradicted 'normal' or current ideas of ritual dress might have resorted to regulation. Cults whose requirements were of particular ritual importance, or were unusually complex, might also have done so. Perhaps most generally, formal regulation might have been required where participants felt social pressure to contravene the ordinary, established, but informal, dress codes.[48]

Such an hypothesis should not be seen as asserting the existence of a universal or integrated concept of ritual dress which transcended geographical, cultic or temporal divisions in the Greek world. It is intended to suggest ways in which a 'system' (in which most cults had little concern with dress other than that it should conform to general or local ideas of proper ritual comportment, and in which those cults which did involve specific requirements as part of their ritual practice generally relied upon customary practice and social censure to inform and restrain their participants) might have worked admirably without formal regulation, and only exceptionally have broken down to such an extent that formal intervention was required.

This hypothesis can account for the general absence of formal regulation of dress by cults, and at the same time explain the instances that do exist, along with their combination of general common features and specific differences. Rather than postulating the extant examples as part of a general legislative phenomenon, or conversely as entirely unrelated, it suggests that there existed a general conception of the proper attire in which to approach the divine (in all probability supplemented by numerous more specific ideas) which was usually adequately transmitted and reinforced informally. Regulation would then have arisen in rare instances for distinct reasons, but nevertheless out of an existing, informal framework.[49]

3.1 Formulation of the Regulations

There are further general points that require attention. The framework outlined above does not address the problem of how the extant inscriptions relate to the original formulation of the rules about dress, although it surely renders this question less critical to their significance. Only two of these regulations give any suggestion of their intended duration.[50] It cannot be known whether the extant regulations were formulated in response to particular crises, or if they represent the codification and publication of traditional practices. However, if it is accepted that the regulations were formulated in the context of a pre-existing conceptual framework of ritual dress for each cult, then this particular lack of data need not detract from their wider significance for the social role of clothing.

I would argue that the existence of these regulations provide a clear indication that colour in clothing was regarded by the Greeks as having important communicatory and symbolic significance. Their

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[48] See below, p.260f, for discussion of incentives and penalties.

[49] cf. Mills (1984:255-65) I do not accept this analysis of the potential linkage between sacred and profane instances of regulation, nor do I agree that the control of women was the main aim of these regulations. See esp. p.250-51, 257-58.

[50] **No. 2** (line 9) 'Let this have authority for ten years' & **No. 4** – Loucas (1994:99)

existence demonstrates that the social significance of clothing was not only conceptualised in Greek culture. It was (in certain contexts) disputed to the rather extreme recourse of formal regulation.[51] Although these regulations are reticent about **why** certain colours were found to be significant, it can be said with certainty that they referred (at some stage) to real colours of real clothing worn by real people, and that at that stage these colours were of actual significance. They must also have enjoyed a defined and understood relationship with the clothes which people actually wore on other occasions, which may have been one of either opposition or reinforcement regarding current dress habits, and cannot (as with the dress codes discussed above) be recovered from the regulations alone. However, it must be assumed that a coloured item prohibited within a sanctuary was a reality outside it, and moreover available to be worn by some of the participants had they not been so prohibited.[52] Conversely, a colour of clothing required of participants must also have been available, though not necessarily readily so.

Therefore these regulations provide, on the one hand, evidence concerning which colours of clothing were and were not acceptable in certain contexts, and thus also of the existence of such coloured garments in these contexts. On the other hand they can, by implication, give us some information about what it was acceptable or possible to wear outside the cultic sphere in that context. In this case, while we are clearly dealing with inference, the chain of assumptions involved will be more direct than where the information is mediated by the interpretation and manipulation of an artist or writer.

3.2 Clothing Regulation as a Widespread Phenomenon:

One final general point remains to be made. These regulations have a historical context, not only in terms of their origin, but also as part of the wider history of legislative intervention in dress.[53] It would seem short-sighted to reject potentially illuminating comparisons with other instances of clothing regulation, particularly when these display remarkable cross-cultural similarities. Although the formal or legislative control of clothing is almost unknown in modern Western societies, it has been a surprisingly widespread phenomenon throughout the world up until the early modern period and beyond (e.g. Maoist China). It is clearly related to the ubiquitous informal ordering of dress habits to denote common culture, ethnicity, gender, group membership and status.[54] After all, any piece of textile, skin or even vegetation may be worn, but every culture has its own concept of what constitutes 'clothing.'

Clothing (with colour as a significant aspect) has evolved as a form of human expression and communication, and one that, possibly due to its inescapably material existence, is especially liable to attempts at control. Like verbal or gestural language, it can be used to lie about almost all of the things it communicates. Moreover, it is a form of material wealth which is both ubiquitous and relatively easily

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[51] See summaries on p.234-35. Regulations without colour provisions: *LSCG* 124, 136, *LSCGS* 56.
[52] The regulations with dedication as a penalty support this, see p.234-35, and p.260f
[53] For details, see n.36 & p.256-58 and Hunt (1996) - a wide ranging history of sumptuary law as a legal and social phenomenon (with comprehensive bibliography).
[54] Laver (1969:1,7) and an extensive treatment, Langer (1959). See Mills (1984:255) and generally, Schwarz (1979).

acquired (compared to houses, retainers, etc.) and an effective expression of status. It is also inherently capable of expressing individuality. The combination of these facets is one reason that dress has demonstrably become a forum for social and cultural discourse in so many cultures, both in terms of the expression of status, and of the conflict between group and individual identity.[55] Therefore, while the unique nature and context of the Greek regulations must always be recognised, they may surely be valuably seen in the wider context of other instances of clothing regulation. This is particularly so in the case of the interaction between regulation and wider dress habits, and of regulatory motives, and is therefore discussed in more detail by the case study presented below.[56]

4. The Result of the Regulations for the Dress of Participants

There is an almost even split between regulations proscribing certain colours of clothing, and those prescribing particular colours. It is also clear that, while there is a good deal of variation in the proscriptions (in terms of colours, combinations of colours, and associated items) this is not paralleled by the prescriptions, which are always for white (or in two cases clean) garments. This supports the hypothesis advanced above concerning the existence of wider concepts of ritual dress. If these regulations had been made in a 'vacuum' – without reference to a wider conception of ritual dress - one would expect there to be an equal degree of variation in both pro- and prescription.

The distinction between these two types of regulation seems crucial for an understanding of the motives for regulating dress, and of the significance of colour. Although both the proscriptive and prescriptive regulations have the same practical aim - controlling the dress of participants - there is a significant difference in the way in which they seem to conceptualise the statements made by the participants' clothing. Prescriptive regulations such as **Nos. 5, 7, 9, 10**, and **6**, would appear to aim at achieving a degree of standardisation in the dress of participants - generally that they should all wear white. The detailed combination of prescription of white and proscription of certain types of decoration, fabric and value shown by **No.6**, indicates that such standardisation would not, as enforced by the other examples, be absolute. The actual effect of the prescriptions on what participants wore, would be groups of worshippers broadly united by wearing mainly white clothing, but nevertheless maintaining the distinctions of type of garment, quality, fabric and decoration, that might still express both status and individuality.[57]

In the most general terms, the aim of these prescriptive regulations might be said to have been social construction, rather than social control, through dress.[58] Their effect would have been to encourage the unity of the ritual community - through broad similarity of appearance - whilst still allowing the expression of both status and individuality. The relationship of such an effect to concepts of purity - especially given the similarity in form to the regulations which require cleanliness - provides a possible

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[55] Hunt (1996:57-9)
[56] Section 5
[57] See below, p.266-67 on grades of whiteness.
[58] See below, p.256-66 for a discussion of social construction and control through the medium of clothing.

motive to be further discussed below, and it would also accord with the accepted role of ritual as a creator of social cohesion.[59]

In contrast, the proscriptive regulations do not at first sight seem to be aiming at any degree of standardisation, since instead of requiring a uniformity of garment colour, they target particular colours. A similar hypothetical reconstruction would result in an image of a congregation wearing a diverse range of colours (excepting those that are explicitly banned) and would therefore seem to require explanation by an entirely different motive based on a different conception of ritual dress.

However, aside from their colour concerns, the pre- and proscriptive regulations are distinguished in another important respect. The five regulations which require white or clean clothing do not specify any penalty for failure to comply with this requirement, but of the other five regulations (those that prohibit the wearing of one or all of decorated, purple or black clothing) all but one, **No.8**, prominently feature penalties, while **No.6** contains penalties for ignoring its specific decoration and value constraints. The inclusion of penalties is important in that it presupposes a desire to disobey the injunctions, a desire that requires countering with a deterrent.

Perhaps then, it is not that the proscriptive regulations originate in a different conception of ritual dress, but rather that they are a response to a different type of circumstance that has caused the breakdown of its informal functioning. It might be suggested that some of the participants of these cults, though aware of the appropriate form of attire for attending, nevertheless found compelling reasons to wear the inappropriate colours, and that the cults thus had to resort to regulations and deterrents. What these reasons might have been will be considered in the next section, but such a scenario provides justification for looking at the wider social as well as ritual 'meanings' of colour.[60] An alternative reconstruction would therefore be of a congregation which largely conformed, but within which certain individuals were distinguished by the colours of their clothing - a distinction the regulations required them to pay for through the dedication of the offending articles.

5. Case Study - A Hierarchy of Women: Status, Dress and Social Construction at Andania.

This section about the Andanian regulation (No.6) concentrates on the idea of establishing a ritual hierarchy, and on some of the reasons for female status display becoming a particular concern of the cults for which we have extant proscriptive clothing regulation. It focuses on the varied interactions between construction and control through dress, and therefore on the relationships between individuals, groups and the ritual community. It also highlights some of the ways in which individual construction through dress might have been seen to impact on, and indeed conflict with, the constitution of ritual communities (a subject which is central to the analysis of colour, as an aspect of visibility in clothing, which follows).

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[59] Culham (1986:243-4) See below n.119 for complete references.
[60] See Ch.4 and p.270-75 for discussions of the social meanings of colours.

Introduction – more complex than control?

Studying the regulation of women's dress inevitably raises the concepts of social construction and control. These concepts are integrally related, and are equally significant factors in analysing ancient society. Understanding the mechanisms of social construction for ancient Greek women, and not only the normative social identities of ancient Greek men is a necessary aim, particularly since our evidence for ancient society is so overwhelmingly grounded in both the rhetoric and the reality of the social control of women. To an extent, the study of the regulation of dress in any era must acknowledge these concepts, since on the one hand, sumptuary legislation (typically directed at clothing) provides a classic, pre-modern legal expression of social control.[61] On the other, clothing is traditionally, and with justification, regarded to this day as one of women's primary instruments of social construction. Discussing the text of this regulation might therefore promise to be quite straightforward – a matter of pointing out how this regulation exemplifies the ways in which the self-construction and presentation of Greek women were controlled by their society.

Yet such a discussion would tell us little that we did not already know. It is a common sense equation – sumptuary legislation aimed at women equals social control – and all that remains to be filled in are the details. Indeed, this equation might also describe clothing regulation from a huge variety of contexts, not just the Roman Lex Oppia, but also the laws of Italian communes, of sixteenth century Scotland, and of many other medieval legislatures.[62] The details change, but the story seems to remain the same. It is hardly surprising to find that many societies have attempted to control their female members, or that dress has been the medium for many such attempts, both formal and informal. What is surprising, and what must alter our view of these attempts, is the extent to which the formal regulation of clothing can often be shown to have been **ineffective** as a means of social control.

The appearance of failure is given by the fact that sumptuary legislation is typically reiterated over greater or lesser intervals, to the extent that such reiteration can be seen as one of the characteristics of this species of legislation.[63] This implies that the various sumptuary measures failed to achieve their desired end of changing the dress habits of the populations concerned, and is often taken to demonstrate

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[61] It should be noted that I have decided not to attempt a detailed definition of 'sumptuary law.' Not only would such a discussion need to be extensive, the definitive study by Hunt (1996) frequently referred to in this chapter, implies that such an attempt would be counter-productive. Where the term is used without discussion in this chapter, it may be assumed to refer to: formal measures taken to restrict the use and display of luxury items (primarily, but not exclusively, clothing) based on overt ideological, and often covert social, aims.

[62] Hunt (1996:17-41)

[63] "Throughout history such laws were generally ignored, flagrantly opposed, only slightly enforced, and gradually became obsolete." Phillips & Stanley (1961:674) But cf. Hunt "Central to the concepts of 'governance' and 'project' is that they always involve 'attempts' whose characteristic is that . . . they typically produce results such that the project remains . . . always in need of supplementation, revision, repetition . . . attempts are thus characterized by a cycle of attempt, followed by partial realization/failure, which in turn initiates fresh or revised attempts." (1996:4) See also (1996:7ff)

that sumptuary legislation was a legal dead end.[64] However, as Hunt points out, the long history and widespread popularity of this sort of legislation, a precursor of modern attempts to assert legislative control over other aspects of personal behaviour on ostensibly moral grounds, raises a major objection to such a view.[65] An important strand of this analysis is the idea that despite consistently failing to actually effect and enforce permanent social change in the degree to which people asserted their social status through clothing, hospitality and elaborate performance of family rituals like weddings and funerals, sumptuary legislation nevertheless played an important role in laying the ground rules for competition between individuals and families, and also in defining the relationship between authority and the individual. (Hunt 1996:1-16)

Therefore, despite the fact that sumptuary legislation seems generally to have failed in its overt aim of social control, it may indeed have proved successful in terms of an underlying function of channelling and restraining the often intense and divisive competition which surrounded issues of social recognition, construction and status assertion. This seems to me a more satisfactory explanation than ascribing the popularity of sumptuary measures to the short-sightedness and lack of imagination of legislators who range in origin from Republican Rome to feudal Japan and early modern America.[66] And I would argue that it is also supported by comparison with modern moral legislation, such as twentieth century drug and alcohol prohibitions, which tolerate actual failure as the price of asserting and maintaining the authority of society over individual behaviours and desires.

This seems to have come a long way from Greek cultic clothing regulations, and yet (although they cannot be said to be sumptuary in every sense of the word) there is value in applying this interpretation – *that the function of such regulation of dress may be more complex than the overt aim of outright control* – to this particularly Greek phenomenon.[67] It is perhaps too easy to assume that the attempt to control women's behaviour needs no further explanation, being an end unto itself, but such an attitude will not advance an understanding of these regulations.

Therefore, I intend to concentrate on the reciprocal implications of Greek cultic clothing regulation and our understanding of the social **construction** of women. Since **No.6** is the most detailed

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[64] Hunt ". . .it seems highly improbable that a form of social regulation, bearing highly charged economic, political and cultural manifestations and found in virtually all major civilizations and which, furthermore persisted until, at the very least, the dawn of modernity, should be regarded as a failure. . ." (1996:9)

[65] Hunt (1996:xvi) "Sumptuary law emerges in this study, no longer as some faintly amusing aberration on the way to modernity, but as a component of the complex of discursive struggles and practical encounters that sharpen our understanding of the link between governance and culture." On the transition to moral regulations, see (1996:xiv)

[66] Rome: Astin, early period (1989:184-6); Miles (1987); Toher, funerary (1986) Norr, Augustan marriage laws (1981); Scott, early period (1973); Hunt, summary (1996:19-22) Japan: Hunt (1996:22-6); Hall (1979); Hearn (1904); McClain (1982); Shively (1955, 1965); Wigmore (1969) America: e.g. Shurtleff (1968); Dilloff (1980); Warwick (1965)

[67] 'Sumptuary' is often used to refer to legislation (as opposed to regulation) which has an explicitly moral component and aim in terms of the restriction of luxury. Neither this particular regulation, nor the other examples of Greek clothing regulation, would be defined as sumptuary under the criteria applied by many

and intelligible of the regulations, and since it displays features often associated with sumptuary measures, it will provide the focus of discussion. I also hope to draw useful comparisons with the wider spectrum of regulations, of sumptuary legislation in general, and of Greek religion and society.[68]

Analysis of content vs. analysis of motive in considering the phenomenon of regulation

The factual statement that 'Greek clothing regulations control women's dress' can be interpreted in more ways than one. It can be regarded as an explanation – 'the purpose of Greek clothing regulations is to control women through dress,' and taken as such, needs little elaboration of motive – societies control women – so that all that remains to be investigated is how such control was asserted, and what specific restrictions were imposed. In the specific case of this regulation, the questions of 'how' and 'what' can be answered relatively simply. Control was asserted by imposing the penalties of confiscation and punishment by the *gynaikonomos*. The specific restrictions are enumerated in the regulation itself, and include details of the monetary worth, garment types, combinations, and decoration, allowed to each type of female participant and her retinue.[69] On the face of it, an open and shut case.

Yet could the statement above not more accurately be phrased 'Greek clothing regulations control women's dress on certain ritual occasions'? One of the major objections to interpreting these clothing regulations as purely the expression of the control of women by society, is that they do not relate to 'women' as a section of **society** but specifically to women as participants in particular cults. They were made by cults as institutions, just as Greek cult sanctuaries made a wide variety of regulations relating to various aspects of behaviour within their territories: "documents aimed at reaching practical compromises, in which the legislators tried to reconcile sacred and secular needs." (Nemeth, 1994:64)

Such a statement cannot be interpreted as an explanation – instead, it raises a number of questions. Why was such regulation apparently only undertaken by a particular type of cult? What was it about women's dress that prompted these cults to regulate it? Why, as well as penalties for contravening the dress regulations, are there also penalties to ensure proper enforcement? By looking at 'what' and 'how,' and assuming that the 'why' is a given, we ignore what the choice of dress as a target for regulation can tell us about the social construction of Greek women, and about their clothing.

Regulation of the Mysteries at Andania

The only place to start is with the regulation itself.[70] This regulation is among the best known and most discussed of Greek cultic clothing regulations. It is also among the most accessible, since its

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of the commentators cited above. I am not suggesting that it should, but that concepts which may usefully be applied in sophisticated analyses of 'sumptuary' law in other contexts may also prove useful here.

[68] For commentary, see Soklowski, loc. cit., Mills (1984:255-65), Culham (1986:235-45) Parker (1996:83) Other regulations, see list above, p.234. Sumptuary legislation, see above & Hunt (1996:17-19).

[69] Andania, l. 29-47, see p.239-44 All line numbers cited refer to the Greek text, not the translation.

[70] The text describes the oaths of the male and female hierophants, and the penalties conditional upon failure to swear them; the arrangements for garlands and other headgear; clothing requirements for all initiands (lines 29-31) for female initiates (lines 31-37) and for female hierophants (lines 37-40); other accessories; provision for enforcement; the oath of the *gynaikonomos* (lines 52-55); the ordering of the procession; the ordering of the hierophants in the procession and the responsibility of the *gynaikonomos* for this. This section was written before I had the benefit of reading Ogden's article '*Gynaikonomoi*'

provisions are relatively clear and detailed. As such, it forms the central example of two of the most recent discussions of Greek clothing regulations, both of which concentrate on the role of clothing regulation as an instrument of the general social control of women in Greek society.[71]

The contention of Harrianne Mills – that cultic clothing regulations demonstrate the use of clothing to control the public appearance of women by the application of religious sanctions – is based on two central features of this regulation, features shared by many of the other, less intelligible, examples. The first of these is that the provisions are apparently sumptuary, and the second that it is overwhelmingly concerned with female dress. In themselves, these two features are consonant with an agenda of social control.

However, I would argue that this regulation cannot (as it is treated by Mills) be considered entirely typical of Greek cultic clothing regulations, of which two distinct types have been identified above.[72] None of the five prescriptive regulations make a distinction of gender, though one **No. 7** seems to originate from a 'women's' cult, and none impose a penalty for non-compliance. In all five, the clothing prescription is brief and straightforward, and where a context remains, it is of a concern with ritual purity. All date from after the early third century BC, and originate from a variety of cult types. In contrast, the other five regulations appear to form a more cohesive group. Ranging in date from the sixth to third centuries BC, they all originate in the Peloponnese, specifically from cults associated with the worship of Demeter, and all show concern with the use of specific colours for clothing, often in conjunction with gold.[73] All make some provision of a penalty for contravention. The regulation under consideration here can be considered as occupying a pivotal position between these groups, sharing features of both, for as well as prescribing white dress, it proscribes gold and decoration.[74]

The most basic point of such a brief and simplified reiteration is that the universal concern of these garment regulations is neither women, nor luxury, but **colour**. The concern with women's dress is manifested by regulations of cults in which the participation of women was for religious reasons a particularly significant feature. Therefore, although it is true to say that women's dress is singled out by some of these regulations, while men's dress never is, this can hardly, given the context, indicate that women's dress was controlled by society while men's dress was not. Rather, it suggests that on certain occasions when women (by other indications) occupied the primary ritual role as active social representatives, their social construction through the medium of dress became an issue, in some cases requiring formal regulation. In order to understand why this should have been the case in such specific contexts, we must attempt some analysis of the operation and implications of the social construction of female identity through dress.

Llewellyn-Jones (2002). The reader is referred to this paper for further information on the role of the *gynaikonomos* and for bibliography, as well as to Garland (1981).

[71] Mills (1984:255-65) Culham (1986:235-45)

[72] For full texts, translations and background to all of the inscriptions in this section, see p.234-49.

[73] See p.235

[74] See tables, p.234-5, as well as text, p.239-44

Penalties: Punishing disobedience or harnessing assertiveness?

The imposition of penalties on women who fail to obey the regulations seems a straightforward enough aspect of social control, and is one of the features which distinguishes the group of proscriptive regulations. Mills notes that where a distinction is made, either women are the only ones penalised, or they are more heavily penalised than men.[75] However, the situation should not be over-simplified, since all of the regulations which carry penalties are either concerned with women's cults and clothing, or are not gender specific.[76] Furthermore, although it is possible to read the imposition of penalties within the regulations as instances of women being punished for attempting to evade social control, it is equally valid to read such penalties as evidence for the real possibility of female 'rebellion' and for the significance of the incentives to inappropriate dress that the regulations existed to counter. In the Andanian regulation, the penalty imposed for contravention of the dress code is confiscation of the offending article and an unspecified punishment (lines 41-52). However, it is also worth noting that immediately following the line detailing the provisions for punishing female offenders against the dress code is a specific section on the oath of the *gynaikonomos*, in which he must explicitly swear to uphold the dress regulation for the women, and is clearly subject to the same penalties as others who refuse to swear, or break their oath. [77]

Confiscation – in these cases taking the form of dedication in the sanctuary – is an interesting punishment, and a common feature of these regulations, in which further punishment, such as a declaration of impiety, often seems conditional upon failure to dedicate the offending item.[78] In terms of the possible motives for this type of regulation of dress, dedication as a penalty argues quite persuasively against ritual impurity of the articles themselves as a motive.[79] It is also notable that as well as being a demonstration of piety, in social terms, dedication also provided an opportunity to display wealth and status to the community.[80] Meanwhile in other sumptuary contexts, confiscation can be seen to have created situations where everyone benefited.[81] This is to say that the enforcing authority could demonstrate its adherence to the critique of luxury, and its power over economic and status elites, in addition to reaping the material benefits of confiscation or fines. At the same time however, those who could afford it simply wore the proscribed articles and paid the penalty, thus demonstrating that they not only had access to the luxury items, but were so privileged as not to be bothered by their repeated loss. This illustrates one of the ways in which the sumptuary regulation of clothing was almost invariably more complex than the overt framing of the laws might suggest. In fact, to see this form of social 'control' as a

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[75] Mills (1984:258-61) I think that for this point her argument is largely based on the funerary law of Gambreion (*LSAM* 16), although even in that specific case I believe it necessary to consider the differing implications of the status of impiety for men and women.

[76] I would argue, see p. 250-54, that funerary laws such as that of Gambreion, which unlike any of the regulations dealt with here, makes an explicit distinction between penalties for men and women, constitute a different case.

[77] Lines 52-55, see also lines 1-19. Osborne on incentives (1998:11)

[78] See **No.2**

[79] Parker (1996: 83 n.36, 144f)

[80] See p.97-100

[81] Hunt (1996:342-56) Greenfield (1918:122-5)

simple exercise in prevention is unjustifiably simplistic, since the redirection or harnessing of disputed behaviour is often both a more realistic, and more valuable, end in social terms.

It is possible then to see this type of clothing regulation by cults not as an attempt to absolutely prevent the entrance of the proscribed articles into the various sanctuaries, but as an **assertion** of control over the behaviour of participants, of the primacy of ritual over secular concerns within the sanctuary, and as a kind of tax on certain dress impulses. This interpretation is borne out by the provisions made at Andania and elsewhere for the punishment of cult officials who failed to enforce the regulations, which seems to presuppose that incentives existed for officials to collude with participants in evading the restrictions. **No.2** provides the clearest instance of this, in which the structure of enforcement is set out in detail.[82]

A 'society of women' defined by dress?

The imposition of penalties indicates that we should be looking for some powerful incentives for breaking the rules. Even leaving aside piety, religious participation was surely an important part of women's lives, and they knew, far better than we, what constituted appropriate or inappropriate dress. What can the cultic context of the Andanian regulation reveal about women as the target of dress regulation? There seem generally to have been two main types of Demeter cult, one broadly identifiable with the Thesmophoria, and one typified by Eleusis. While the identifying feature of the first type is its restriction to women, a characteristic of the second is a wide spectrum of participants. The regulation from Andania concerns a cult of the second type, a mystery cult of various deities including Demeter among their number.[83] In this case then, the concentration on women's dress cannot be wholly explained by women's centrality to the cult.

Although the text of the regulation goes into a surprising degree of detail about dress, it does not give an aim or rationale for the dress provisions. Thus we are left to speculate, and the only bases for such speculation are the provisions themselves. For the clothing section of the regulation, these are clearly of a sumptuary type – they allow certain degrees of latitude, expense and decoration to various categories of women. Such concerns are, in other contexts, generally linked to and protective of, the 'legitimate' expression of social status.[84] However, in this specific case, the categories established are not expressive of social distinctions of birth or economic status. Instead they order the display of participants according to their ritual status, as initiands, initiates and hierophants.[85] Moreover, the restrictions are applied comprehensively throughout this ritual hierarchy, from top to bottom. One common feature of sumptuary regulation is that it aims to prevent members of lower social grades from usurping the display privileges of the elite, who are left free of restriction. Another is that generally accepted as the motive for Athenian funerary legislation – sumptuary measures as an attempt to prevent invidious excesses in the display of

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[82] See p.245
[83] List of sacrificial victims in the last line of the inscription as given by Sokolowski. See p.234
[84] Sumptuary legislation protective of 'legitimate' social status; Hunt (1996:24) and n.86.
[85] See lines 29, 33, 37

luxury by the elite.[86] Both of these sumptuary strategies are essentially restrictive, either of the opportunities for social aspirants to rival their 'betters' in display, or of the assertion of elite status.

In contrast, the intent of the provisions of this regulation is better summed up as constructive. Their effect seems to have been to erase the distinctions of profane social status which were usually expressed through dress, and to replace them with a separate sacred hierarchy, articulated and expressed through detailed dress provisions which applied to all. Such an interpretation is supported by the following section of the inscription, which concerns the ordering of the procession (lines 55-65). This section deals with both men and women, although in rather different ways. "Then the female hierophants, one by one as chosen by lot, and then the male hierophants as the Ten shall direct" (line 62-3). This establishes the order of procession and ensures that the female participants proceed strictly according to lot. The implication is clearly that if the assignation by lot is not adhered to then the procession will be ordered according to considerations of profane status – wealth, birth and power – rather than of ritual grades and the equality appropriate within them. If this is accepted as parallel in intent to the dress provisions (the wording and the provisions for enforcement, as well as the categories of women referred to are similar) then this is persuasive evidence that the intent of **both** these sets of provisions is to establish a sacred hierarchy which is independent of considerations of secular status.

As a motive, we need perhaps look no further than the relatively egalitarian ethos of the mystery cult, which offered membership of an elite group to those otherwise excluded from the society of free, male, citizens which was the Greek ideal.[87] Of course, in this ritual 'class system' the distinctions of social **role** are not erased – matrons, daughters and slaves continue to stand in relation to one another – yet both the regulations of dress and of the order of procession seem aimed at levelling the advantages of wealth and birth which controlled social **status** rather than social role. Thus we might imagine that a rich aristocratic initiand and her retinue would, under the force of this regulation, be restricted to a lesser assertion of status through dress than a poorer initiate or hierophant, and would be unable to use her family power to 'get ahead' in the procession. As an aid to *communitas* (of the specific ritual community) this would surely be effective.

Why not men?

However, it has not yet been explained why these restrictions were not equally applied to men, who were clearly not debarred from participating, and certainly had both status and roles within Greek society. In answer, I would first quote two observations, both of which concern something that is often taken as a truism – clothes are particularly important to the social construction of women. This sentiment is raised by Livy: "No offices, no priesthoods, no triumphs, no honorary insignia, no gifts and spoils from

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[86] Dem.43.62: Plut.*Solon* 21; Cic. *De Leg.* 2.64 ; Stears (1998;117) etc. See above, n.10 & 12

[87] Ethos of mystery cults: Graf (1994:63) Of the Mysteries "Here . . . the individual approached the gods, at the same time defining himself." Of the Eleusinian procession "The initiates were marked by their uniformity and their refusal of distinctions between social class, origin and gender. Their old and ragged garments emphasized the absence of hierarchy." Although I am arguing here for the creation of a

war can come [to women]; elegance and adornment in apparel – these are the insignia of women." It is reiterated by a woman of fifteenth century Bologna protesting against that city's sumptuary laws "Ornament and apparel, because they are our insignia of worth, we cannot suffer to be taken from us."[88] As Hunt points out, the classic explanation for this is that: "Whereas men derive their recognition from their public roles, women being excluded from such roles take their social positions either derivatively from their fathers/husbands or by means of the primary form of their social presence, that is their visibility . . ."(Hunt 1996:219). It is the second part of this general explanation that often attracts attention, and which perhaps leads Mills to regard clothing regulation as primarily addressing the economic and social status of men but the moral and sexual status of women.[89]

In terms of this and other Greek clothing regulations however, the first point is also significant. Ritual participation not only allowed Greek women an otherwise apparently rare opportunity to appear in public life, but in certain circumstances – perhaps particularly in female orientated cults like the worship of Demeter, or in cults orientated towards the individual, like the Mysteries – demanded that they do so as social actors independent of their male kin. However, unlike men, when they emerged into public social life in this way, as representatives of their households in interaction with the divine, their exclusion from other aspects of public life meant that they did not already have social personae based on their public actions – as citizens, soldiers, office holders etc. – in which to do so. Such public personae would therefore have to be constructed, with clothing providing one medium for the process. I would argue that in this particular context, where women were not simply being seen in public, but taking an active part in public life, moral and sexual status were not in fact the only, or even the most important, attributes expressed by their clothing.

These are the negative reasons for the importance of clothing in constructing women socially, but in the case of Greek women it can be argued that there were also important positive reasons. Within the private sphere, women occupied a significant economic position as managers of the household and its resources, and particularly as textile producers.[90] Thus a woman's clothing may have been a particularly apt and direct means to express her socially valued qualities of *sophrosyne* and domestic skill, as well as simple economic status.[91] If Greek men were judged by society on the basis of their public actions – what they did – might Greek women not have been similarly judged according to their private actions – what

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hierarchy, it is a hierarchy which goes one further than this view of Eleusis, by not only erasing, but replacing, through regulation, the everyday status hierarchy.

[88] Livy 34.8-9; Nicola Sanuit, in Hughes (1983:87) If the latter is inspired by the former, this would certainly make a positive statement about women's education in Renaissance Italy.

[89] Mills (1984:255-6) Summarized by Hunt as "While men's dress expresses a 'hierarchical principle' of class or status manifesting self-aggrandizement, women's dress is an expression of a 'seduction principle,' of sex consciousness. This view. . . is cast within an essentialist view of sex difference. . ." adding "for women sumptuary law manifests considerations of moral regulation and respectability." (1996:219) See also Hughes (1976:49).

[90] Stears (2002). Generally, Schaps (1979)

[91] See Ch.3 generally, especially p.97-100

they made? This would constitute a major positive reason for women's clothing being regarded as more significant for their social construction than that of men.[92]

But does this explain the regulatory attention? I believe that it does, since it provides an explanation why competition through dress should have been most intense, and therefore most deserving of regulatory attention, when women themselves represented the household. An important factor in considering motives for regulation is that women's clothing as described above did not necessarily provide an **accurate** representation of their virtues. If we consider that impressive clothing items might be purchased as well as home produced, and that one of the major impulses behind the concern of many later sumptuary laws with dress was the potential for social aspirants to represent a higher economic position through their clothing than they actually possessed, then it can be hypothesised that these proscriptive clothing regulations were also intended to 'level the playing field' in a similar way to the Athenian funerary legislation.

However, the parallels between the dress and processional sections of the rule, and the concern of both with emphasising the importance of ritual status, also suggest that part of the intent of this regulation was to create a ritual hierarchy distinct from profane social rankings. If this possibility is considered in the light of the fact that not only may Greek women have lacked public personae in which to undertake ritual action, but that there would therefore have also been much more **fluidity** in their relative social positions than was the case for men, this concern becomes more explicable. After all, the public 'society of men' was in daily use and interaction, the relative positions of its members established and redefined constantly, while women were (more or less) confined to their private sphere. The section of the regulation which orders the procession for men is straightforward, implying that both the deciding authority, and the men themselves, had already a clear idea of the proper order. Women, meanwhile, with no 'honours' to aid them in assessing their relative public positions, without the benefit of daily public interaction to fix and adjust their hierarchy of public status, and being accustomed in other public situations to taking their status from their household and male kin, can be imagined as much less likely to have unproblematic or fixed relative rankings.[93] I suggest that in situations where the 'society of women' was visible and important, the creation of the *communitas* necessary for effective ritual action required the imposition of some kind of defined framework in order to reduce the divisive effects of competition.

Conclusions

The association of clothing with social construction is hardly radical, but these regulations indicate that Greek women not only understood the potential of clothing as an agent of social construction, but also used it to actively construct themselves: to create social personae which reflected their wealth, status and skills, and not purely in a personal or sexual sense. The existence of such regulations in itself

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[92] See p.200, n.66

[93] My underlying assumption is that such regulation of dress should not be seen as expressing the status quo, but rather as standing in opposition to it. I am not arguing that secular social rankings were the basis of the processional order for men, but that **discounting** the existing order is much less problematic when that order exists as recognized and undisputed in a plethora of other situations.

implies that their ability to do so was recognised by society at large, and that on certain occasions this ability provoked attempts to direct and restrain it through regulation.[94]

To conclude this section of the discussion: the dress of Greek women can be seen in terms other than those of modesty, sexuality and social role. Status too seems to have been an issue, and one that could have been, for various reasons, less easily addressed through the otherwise effective medium of social censure. Clothing regulation would have the effect of erasing the distinctions of profane social status (which I have argued were, for women particularly, and for both positive and negative reasons, expressed through clothing) in order to emphasise the independent distinctions of ritual status. My aim in this section has been to consider the regulation of dress from the perspective of social construction, but it should be apparent that this has important implications for the wider theme of the social significance of colour and decoration in Greek clothing. [95]

6. Regulating Colour, Regulating Visibility

The preceding sections have presented the material which regulated the colour of clothing, discussed its context as cultic regulation, and suggested that the importance of dress to the social construction of women provides a motive for the proscriptive regulations. However, it remains to answer the questions that these factors raise. Why colour? Why is the distinction between prescriptive regulations without penalties, and proscriptive regulations with penalties, paralleled by one between white and colours? Why these colours?

6.1 Colour in the Classification of Greek Dress:

Section 5 argued that the proscriptive regulations targeted the social construction of women through dress.[96] In doing so, relatively little attention was given to the aspects of dress that were singled out, although the importance of colour is clear. The question remains: why do the regulations identify colour and decoration, of all the aspects of clothing, as those whose proscription best addresses the issue of social construction? Certainly, the clothing of worshippers would have possessed other qualities – for example, garment type, fabric and value – which might also have been regulated.[97] And **No.6** does indeed target them, regulating not only colour and decoration, but also garment type, fabric/weight, and value. Yet it is unique amongst the regulations in doing so. The other regulations of both types concentrate on colour, and use only generic garment terms. The preceding sections have begun to question the 'what' and

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[94] I believe that the interpretation set out above can also be applied, to some extent, in a consideration of the other, earlier, material, since it offers a specific explanation of why cults of this particular type resorted to the rather extreme measure of formal regulation. See table, p.234

[95] A more general thrust of this discussion has been to suggest that, although the dress – the material aspect of the visibility and social presence (or absence!) – of women was surely controlled by Greek society, and perhaps particularly so through the internalised expectation of social censure, these regulations should be seen as indicative of the fact that we need not assume that such control, however it was applied, was met purely with passive acceptance.

[96] However, control of women as an end in itself was rejected as a motive. In the specific case of the Mysteries at Andania, constitution of a ritual status hierarchy provided an immediate motive. Wider motives for both pro- and prescriptive regulations are discussed below.

[97] See Glossary, p.134-47

the 'why' of these regulations. In order to advance the inquiry, these questions need to be addressed in more depth. What is regulated is one specific aspect of clothing – its colour. This section therefore considers Greek clothing from the point of view of visibility, both physical and social, and compares colour to the other factors summarised above.[98]

In modern Western clothing the primary criterion for classification of garments is type – i.e. shirt, trousers, skirt, etc. – and its basis is form. Modern dress is fitted, not draped. Its basic form is fixed, and usually fairly clear once the garment has been created. For Greek dress, which was generally (though not universally) draped, not fitted, this situation did not obtain.[99] The essential difference between a *himation* and a *chiton* was not physical structure, which was very similar in terms of shape and size, but the manner in which the fabric was arranged on the body.[100] When Greek garments were not being worn, they would not have been as readily distinguishable as unworn coats and skirts.[101] When they were being worn, as is clear from artistic representations and scholarly discussion, the multitude of possible arrangements and appearances which could be produced from very similar pieces of fabric by artful draping and pinning, render form and type both artificial, and imperfect, as the primary method of classification.[102] Of course, the fact that different types of garment are named in Greek demonstrates that they were certainly recognised, but a target for regulation needs to be immediately visible (possibly from a distance) and acceptably defined.

It is clear from Chapter 3 that both the material and structure of fabric were important distinguishing factors for garments. These factors are mentioned, as prescriptions, by **No.6** above.[103] Their more general unsuitability as targets for regulation may be attributed to a number of reasons. On the one hand, it seems likely that part of the distinction between inner and outer garments was based on fabric composition.[104] This distinction might be supplemented or replaced by one of fabric weight. On the other, the range of qualities, weights, structures and materials used for fabric was undoubtedly vast, while this attribute of clothing was not necessarily readily distinguishable at a glance. And so, targeting the material or structure of fabrics might have prevented participants from being 'properly dressed' (either in terms of

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[98] The analysis of the descriptions of clothing used in inscribed catalogues compares these factors to colour in the identification of garments, see Ch.3. However, it should be recognised that regulation concerns garments as worn – therefore in combination, and by groups of people, in contexts where detailed examination would not be appropriate.

[99] See *kandys*, p.125, n.96

[100] I would be no means claim that this was the only difference, since *himatia* and other over-garments were in all probability generally made from particular and different weights and types of fabric than *chitons* and other undergarments. See p.212

[101] See Ch.3 generally, especially p.102

[102] My own forays into experimental archaeology have verified that the swathed appearance of the Tanagra figurines can in fact be obtained without changing the pinning or belting of a sleeveless *chiton* with overfold, despite the relatively light fabric appropriate to this style.

[103] Andania – *kalasiris*, *sindonita*, etc. See above, table, p.234-5 and text, p.239-44, esp. 240-41, 244

[104] It is widely accepted that the *chiton* was generally a linen garment, the *himation* a woollen one, and it can be seen from art that there was a parallel distinction between the weight of fabric used for inner and outer wear. Bieber (1928)

modesty, or practical comfort) without providing the advantage of an easily recognised and acceptably defined target.

From a study of clothing regulation in other contexts, one might expect the value of garments to be the standard target of regulation.[105] Again, this aspect is mentioned, and more significantly than fabric, in **No.6**.[106] Yet it appears only in this (relatively late) regulation. Value may have been difficult to agree upon (particularly in earlier periods) where standard valuations of different fabrics had not been firmly established through trade and resale, and where clothing, even if not entirely home-produced, was a common object of domestic manufacture rather than purchase.[107] Even in the sumptuary legislation of later periods, value orientated measures focused on items which were objects of trade (such as furs, silk and lace) and whose value was therefore a matter of record.[108] And so, again, it can be argued that this aspect of clothing was difficult to define, not immediately visible and subject to debate. (The true value of fabrics other than those like silk and furs, which are made of rare materials, is often dependent on their quality, on such aspects as weave, fineness of wool, etc.).

Therefore, although the above aspects may all present themselves readily to our minds, a consideration of Greek dress suggests why they were unsuitable, or less obvious, targets for cultic regulations than colour.[109] But it is not enough to provide negative reasons for the prioritisation of colour. As positive reasons, there is the fact that the dyes chosen for fabrics may themselves frequently have taken into account the factors of fabric, weight and worth, as well as the pre-eminent **visibility** of colour. [110]

In the first place, certain fabrics, especially linen, are more difficult to dye with natural stuffs than others, such as wool. [111] Different fabrics also have different properties and fastness after dyeing, which makes them more difficult to care for. But most importantly, in terms of the fabric itself, fine quality fabrics would be more likely to be dyed with rare, expensive, or imported dyes.[112] This implies that colour can act in itself as an immediately visible index for the quality, and by extension the worth, of fabric. The qualities of natural dyestuffs, which to our minds tend to produce tastefully muted, 'natural' colours also increase the visibility of those bright colours which can be achieved. Furthermore colour, being a product of a technical process in clothing, can reveal access to either imported, unusual or expensive materials, or that a garment has itself been imported, while decoration provides evidence of the amount of time and effort expended in the production of a textile. All these aspects were discussed more fully in Chapter Six, but this summary reminds us that there is more to colour as a target of regulation than meets the eye.

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[105] Hunt (1996:27, 241-245).
[106] Andanian – not more than 100dr, 1 mna etc.
[107] Stears, 'Pandora's Toil: Domestic Production of Textiles in Ancient Greece' delivered Maynooth 2000
[108] Hunt on silk, fur, lace and colour (1996:119, n.8, 120, esp. 125-9). Specific colours in trade items, p.218, 229
[109] See above, p.258f on motives for regulation
[110] See generally, Ch.6, especially p.225-28
[111] See Ch.6 for detailed information on, and discussion of, dyes.

6.2 Regulating the Expression of Personal or Social Identity? Community in Ritual

To return to the visibility of colour as an aspect of clothing, this would surely have been particularly important in a group context. The discussion of the possible effects of the regulations in Section 4 emphasises their cumulative, rather than individual, effect on dress.[113] At present, clothing is generally considered to be of either personal, or on a more abstract level social, concern, and clothing regulation to be aimed at the individual for a social purpose. (Section 5 did not challenge this assumption, although it emphasised that the social purpose was the constitution of a ritual community). I would argue that a focus on dress as expressing personal identity, and on the relationship between **individual** and **society**, is characteristically modern. Evidence for Greek ritual practice suggests that in most ritual contexts, neither of these levels was particularly appropriate, the focus being rather on the constitution and interactions of communities of various types.

This is exemplified by the concept of the 'sacrificial community' the medium for the essential connection between the Greeks and their gods. Although the modern congregation may be among the closest parallels, the sacrificial community is distinctive in a number of respects. Rather than being primarily divided into performers and spectators (priest and congregation) all members of the sacrificial community were involved in the action of sacrifice to a greater or lesser extent, either by the throwing of grain, or the raising of the cry, but always by the communal consumption of the meal.[114] Moreover, the central act was not the special preserve of the priest.[115] Thus while in Protestant thinking the primary relationship is between the individual and the divine, in Catholic between congregation and the divine (through an ordained priest and ultimately the Pope) in Greek religion the relationship of primary importance seems to have been that between the community and the divine.

Community, of course, was variously constituted and defined. It might be a family sacrificing at the hearth or grave, a group of diners pouring libations, an army sacrificing before or after battle. At the Mysteries, the community was of initiates, at the Thesmophoria, of women, at the Panhellenic festivals, of Greeks.[116] The Parthenon frieze can be regarded as depicting the community of Athens in their relationship with Athena and the Olympians, and points out one of the other central aspects of ritual practice – the ritual community displayed in procession.[117] The importance of community, and particularly

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[112] See Ch.6 as above. For this contention, see Gage (1993) Harte (1983) and Granger-Taylor 'Dyes and Coloured Texiles' & Monaghan 'The Cost of Colours' delivered at Edinburgh, 2001.

[113] See p.255-56

[114] Burkert (1985:255) "the sacrificial community is a model of Greek society . . . Thus it is for religion to shape all essential forms of [Greek] community." Other discussion (1985:55-58, esp. n.27) "The order of life, a social order, is constituted in the sacrifice . . . religion and everyday existence interpenetrate so completely that every community . . . must be founded through a sacrifice." (1985:59) See also Nilsson "animal sacrifice was the central ceremony of Greek religion" (1948: 11-12)

[115] Burkert on sacrifice "among the Greeks, sacrifice can be performed by anyone" (1985:95) "all are involved . . . At the same time, the tasks are differentiated, the ranks graduated . . . one man, a king or official, a priest or the head of the household, assumes leadership."(1985:254)

[116] e.g. Burkert (1985:255-8, 264-8) with full bibliography.

[117] Graf "the ritual movement . . . is used to define the participants, the city, and the relationship which a given sanctuary and its cults and divinities have with the *polis*." Aims of processions: "from the display

of communal comportment, is further emphasised by numerous myths surrounding various cults, and most memorably by Attic tragedies such as the *Bacchae*, where whole communities, or their individual members, have jeopardised just this relationship.[118]

The examples above present themselves because their constitution and definition of community is simple. However, myth suggests that even when membership of a ritual community was well defined, the comportment of its members could be a problem. And when membership of a ritual community was not defined by external factors (being a resident in the Athenian *polis* for the Panathenia, etc.) we can imagine that 'creating' community, or at least *communitas*, might also have been so.[119] To an extent, these points have been implicit in the discussion of regulatory motives so far. They are made explicit here, because the importance of community in Greek ritual practice, especially the importance (for effective ritual action by the community) of the proper comportment of individual participants, seems to me to provide essential context to any view of these regulations. I would argue that it is against this background, rather than the relationship between individual and society, that the prioritisation of colour in these regulations should be viewed.

7. Colour, Collective Appearance, and Visibility

This section considers the constitution and comportment of the ritual community as possible motivations for the focus on colour shown by these regulations. I shall argue that the distinction between a ritual community appropriately constituted for worship, and one that was proper in its comportment, was reflected by the distinction between proscriptive and prescriptive regulations, between specific colours and white. It is perhaps the case that this argument is somewhat superfluous to a consideration of these regulations in isolation. However, the overall intent of this thesis is to explore the use and significance of colour in clothing, not only in the cultic context to which these regulations apply, but also in wider Greek culture and society. In the brief discussion of dress codes above, I suggested that such codes might stand either in opposition to, or reinforcement of, wider dress habits. In Section 3 above, I suggested that these regulations arose from a more general and informal conception of ritual dress. The sections which follow represent the attempt to define and explain some possibilities concerning the relationship of ritual dress to the everyday social significance of clothing, undertaken because I believe that these regulations, as examples of complex conceptualisations of the significance of clothing, have the potential to be very informative in this respect.

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and confirmation of civic order to the quest for individual blessing." (1996:55) Parthenon freize, Burkert (1985:258)

[118] Blundell & Williamson, of the *Bacchae* "the links implicit in the play between individual identity, ritual practices and the wellbeing of the community as a whole. . ." (1998:7ff) Cole on "the punishment of the entire community for one person's violation of a ritual requirement" (1998:30-31) Paus.6.19.3, Suda s.v. ἄρκτος ἢ βραυρόνιοις and Sale (1975:268)

[119] Turner, (1969:138) Firth (1973:86) Moore & Myerhoff (1977:23) Douglas (1975:54) Van Gennep (1960:94ff) Culham (1986:243-4) Sanday (1974:189-206) Acker (1973:936-45)

7.1 White and Purity:

Ritual purity is a central concern of the prescriptive regulations. This can be seen from their other requirements, and is a major concern of the non-clothing examples of cultic regulation. The association, in these regulations, between white clothing and clean clothing, is both intuitively correct and supported by external evidence.[120] However, it is not necessarily the case that the importance of clothing colour in ritual purity is purely symbolic.[121] Certainly, white can be regarded as a having symbolic association with physical and moral cleanliness. Yet, since the era under consideration is not only pre-industrial, predating the development of effective detergents and bleaches, but also one where fresh water was a relatively rare commodity, is it beyond belief that white clothing was also demonstrative of physical cleanliness, and perhaps more significantly, of preparation for ritual?

In contemporary culture, white is automatically regarded as the 'base colour' of fabric. Previous chapters have demonstrated why this is not the case in Greek material culture.[122] Before the era of 'Daz and washing machines, white clothing (which after all remains demonstrative as well as symbolic of cleanliness in many modern contexts) must have been even more powerfully equivalent to clean.[123] Since it seems likely that white clothing was the result of a lengthy process, it would seem likely that the white colour not only demonstrated that the fabric itself was clean, but that the body it covered had been washed, since this was a much simpler process.[124] By implication, one can speculate that white clothing indicated the completion of a deliberate and necessary process of preparation for interaction with the divine.

White clothing may therefore have functioned as a **visible** indicator that the processes of preparation and purification had been completed. The whiteness of clothing would have indicated, to the community as a whole, each member's preparation for, and commitment to, ritual action. And, as a requirement for entry to a sanctuary whose guardians were especially responsible for the purity of the house and property of the god, such a visible indicator, symbolic perhaps, but also encompassing practical concerns, can be imagined as possessing a certain value.[125] I would argue, therefore, that the requirement for white clothing was at least partially occasioned by its function as a visible indication of the proper comportment of the ritual community.[126]

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[120] Plato *Laws* 955e-956a. "In general, and particularly in the case of woven material, white is the colour appropriate to the gods;" Numerous instances in tragedy, i.e. A.*Eum.*41-5, 353; *Supp.*191-2, 333-4. E.*Alc.*922-3; *Ba.* 111-3; *Hel.* 1186-8 See p.265 etc.

[121] In the sense, for instance, that the white dress of contemporary brides symbolises, but is not demonstrative of, virginity and consequent ritual purity (I do not mean that brides are not virgins, merely that their white dress **proves** nothing).

[122] See p.193

[123] Instances of white clothing as demonstrative, rather than symbolic, of cleanliness in the modern world include the professional dress of chefs, doctors, etc.

[124] Parker on washing of body (1983:20, 74) clean clothes (1983:68, n.117) Also Taplin (1980:9-11)

[125] e.g. Nilsson (1948:10) Burkert (1985:88) etc.

[126] This would not supersede its function, discussed above, of unifying that community in terms of this most visible characteristic of their dress.

7.2 Beyond Purity:

The motive of ritual purity fits some of these regulations so well that it has often been extended to them all. This section concentrates on the reasons for resisting such an extension. Since specific colours of clothing are prohibited without explanation, and since so many other cultic regulations are clearly concerned with purity, the possibility that certain colours were targeted because their symbolic or communicative content conflicted with the requirements of purity, does come readily to mind. As discussed above the explanation for such a conflict has been expected to come from the areas of modesty and sexuality.[127] The main justification for regarding the proscriptive regulations as controlling the expression of female sexuality through dress comes from the often-quoted Sicilian laws relayed by Athenaeus.[128]

Φύλαρχος δ' ἐν τῇ πέμπτῃ καὶ εἰκοστῇ τῶν Ιστοριῶν εἰπὼν ὅτι παρὰ Συρακοσίοις νόμος ἦν τὰς γυναῖκας μὴ κοσμεῖσθαι χρυσῷ μηδ' ἀνθινὰ φορεῖν μηδ' ἐσθῆτας ἔχειν πορφυρᾶς ἐχούσας παρυφὰς ἐὰν μή τις αὐτῶν συγχωρῇ ἑταίρα εἶναι κοινή. . . . τὸν ἄνδρα μὴ καλλωπίζεσθαι μηδ' ἐσθῆτι περιέργῳ χρῆσθαι καὶ διαλλαττούσῃ ἐὰν μὴ ὁμολογῇ μοιχεύειν ἢ κιναίδος εἶναι . . .

"Phylarchus, in the twenty-fifth book of his Histories, says that among the Syracusans there was a law that a woman should not put on gold ornaments or wear gaily coloured dresses or have garments with purple borders unless she admitted that she was a common prostitute; . . . a man might not affect foppish ways or adopt a fancy and conspicuous mode of dress unless he confessed to being an adulterer or a pathic."

These laws are identified as instances of a similar concern, yet such a view neglects their **effect.** Certainly these laws link fine clothing and censured female sexuality. However, the link is made in such a way as to discourage the wearing of high-status clothing **by** linking it with prostitution. There is nothing to discourage women who were, and were known to be, prostitutes, from wearing such clothing. As such, these laws stand at the beginning of a long tradition of legislation attempting to control the status assertion (**not** sexual behaviour) of women by equating high-status clothing with low moral and social status. This has undoubtedly been even more commonplace in less formal expressions.[129] The intent of such legislation is most succinctly expressed by a Scottish law of 1567, which simply states "it be lauchfull to na wemen to weir abone their estair except howris"[130]

Furthermore, it would be wrong to regard these laws as having been solely concerned with the dress and sexuality of women, since they deal equally, and similarly, with men. This is not to say that the

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[127] See above, p.263f, for discussion of the assumed link between female dress and sexuality,
[128] Ath.*Deip.*12.521f; Phylarchus *FGrH* II 81 F 45; Diod.Sic.12.12 c.f. Phot.*Lex.*25.8; Hermog.*Rhet de Const.Caus.* 12; Clem.*Paed.*2.10; Culham (1986:236) Osborne (1998:9)
[129] Hunt, (1996:215-54)
[130] 'It is lawful for no women to wear [clothes] above their estate unless they are whores' *APS* III:40:c.41, Harte (1976:148) Hunt (1996:245)

evidence of these laws is insignificant. Far from it in fact, since the formulation of such laws demonstrates a sophisticated and subtle appreciation of the power of dress to make social statements, and its potential for manipulation by both individual and society. Nor is it to deny the association of luxurious dress with prostitution. Such an association is attested by later sources. [131] It is also logical, since a successful career as a prostitute could provide a high level of disposable income (unparalleled, most probably, by that available to women of all but the highest status otherwise, given the respectable association of land and status) to women of otherwise low social standing.[132] Further, we must imagine that prostitutes, by displaying wealth, were advertising their skill and success. The law quoted above need not therefore be seen as creating an artificial association, but rather as rendering it explicit, and stating that it would be held to be the case, even when **actually** false.

The second pillar of the 'control of female sexuality' thesis originates in the association of proscriptive regulations with the cult of Demeter, the goddess of fertility and regulated sexuality.[133] However, while garments of sexual display may well have contradicted the ethos of her worship, to imagine a context where formal regulation was required to prevent them would seem to require one of two assumptions. Either, that regulation was required to prevent prostitutes from wearing their customary dress while participating in the worship of the goddess. Or, that women were so unmoved by either internalized or external social censure, that the only way they could be restrained from behaviour which conflicted with the explicit demands of piety was through formal regulation. In all honesty, too little is known about the worship of Demeter at the sanctuaries concerned to either support or deny the first assumption in detail. It runs so contrary to our general image of the cult of Demeter, however, that the presence of actual prostitutes is not even raised as a possibility by other commentators.[134] Accepting the second assumption, meanwhile, would seem to overturn almost every other assumption concerning the position and autonomy of women in Greek culture.

It is for such reasons that I have focused on an alternative motive (the regulation of status display and assertion) in my analysis of these proscriptive regulations. Such display can be seen to run counter to the ethos of worship, and to hinder effective ritual action, but only in its most extreme forms, requiring therefore only occasional regulation. This view is, I feel, supported by Osborne's discussion of ζτεραῖον, by the short duration of two of the regulations, and by the colours concerned themselves, and the way in which the regulations treat them in the same terms as gold, as well as by the use of dedication as a penalty.[135] The next section will suggest some reasons that extreme displays of status might have been unacceptable in Greek cult, in order to give a more general view than was attempted by Section 5 of the importance of coloured clothing for the social construction of individuals and groups.

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[131] Schol.Soph. *OC.* 680; Sud. & Phot. s.v. ἑταιρῶν ἀνθινων; Ar.*fr.*320 c.f. 321; Mills (1984:269) Parker, (1993:82-3, n.26)
[132] Roper (1985a:20)
[133] Parker (1983:52, n.78; 82-3, n.36; 144-5)
[134] See n.127&128 above, and Mills & Parker & Osborne, various loc. cit. on sexuality
[135] Ath.424f; Thphr.*fr.*119; Sch.Ar.*Lys.*150; Poll.7.48, 4.118

7.3 Comportment / Constitution of the Ritual Community = Purity / Status?

Returning to the distinction suggested above between comportment and constitution as important factors in the efficiacy of communal ritual action, the proscriptive regulations would therefore, in my view, address the constitution of the ritual community, more than its comportment, whose propriety was addressed by the prescription of white. I would argue that the wider conceptual importance of the properly constituted community in ritual provides the 'missing link' between the control of status assertion in dress, and these regulations as a cultic phenomenon. I would also argue that it explains the unusual feature of these regulations as an example of such control – the fact that there is no example of a priveliged class of participants to whom they do not apply.[136]

What was a 'properly constituted ritual community'? For the Mysteries at Andania, it seems to have been one in which social status was eclipsed by ritual status, but this specific argument cannot be widely extended. It seems clear that the Greeks conceived of divine as well as social reasons why a unified and ordered community was desirable. Violations of the 'natural order' met, in Greek mythology, with often extreme manifestations of divine displeasure. Tragedy highlights the consequences of personal violations, but plays such as the *'Antigone'* also indicate that the concept was more far-reaching. The ever present danger of civil strife in most city-states only increased the conceptual import of harmony and order. The Parthenon frieze provides a surpassing example of the role of ritual in constituting the community through reproduction.[137] All sections of Athenian society are represented in the procession, each with their appropriate role to play, each in their proper place and right relationship. This aspect of ritual, especially the procession, is only further emphasised by those festivals, like the Anthesteria and Thesmophoria, which reversed or reconstituted the social order.[138]

It is hardly controversial to claim that ritual could provide the occasion for the creation of *communitas*. It is perhaps more so, to point out that the corollary of this is its importance as a forum for the discourses of status assertion.[139] Ordinarily, the delicate balance between these two functions of dress would surely have perpetuated itself. Yet it is not surprising that in instances where this balance decayed (and I have argued above that there were reasons for 'women's' festivals being particularly liable to this) cults might resort to regulation to restore it. Nor is it surprising to find dress, the most visible, ubiquitous, portable and volatile indicator of status, as a medium for these processes.

The conception that the gods were present at ritual occasions is one reason why maintaining this balance would have been important. Not only was ritual enacted in the sight of gods, but at least in some sense, the gods were seen as occupying the pre-eminent place in the social order.[140] For communication

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[136] See n.83, 85

[137] Graf (1996:55-65) on procession as an aspect of ritual which allows the community to 'see itself.'

[138] e.g. Burkert (1985:237-42; 242-6; 259)

[139] Dem. *Meidias* 22, Ch.4 generally, especially p.170-72

[140] E.g. reception of Asklepios at Athens is indicative: Parker (1996:175-85, 216) Clinton (1994:17-34) As is concept of *theoxenia*: Jameson (1994:35-57) Generally, Burkert (many e.g, esp. 1985:182-3; 187, 254) Of Xenophon's sanctuary of Artemis "entails an annual festival at which the whole neighbourhood meets with the goddess, and with Xenophon." (1985:259) See also A.*Sept.*136 ; Archilochus *Fr.*94

with the gods, it was not only important that the ritual community reproduced an ordered and united society, but also it was essential that men and gods should maintain their appropriate relationship. Though the concept of sin was absent in Greek religion, *hubris* was surely the closest analogue. A multitude of myths make clear the price for attempting to rival the divine.[141]

In these two concepts, the proximity of the gods, and their possession of unapproachably high status, can perhaps be found an explanation of the most puzzling omission from these regulations as proscriptions of status assertion – the fact that they apply to all participants. High-status clothing is not reserved for high-status individuals. It is simply proscribed. Even in the Andanian regulation, which establishes grades, the display of the highest is curtailed.

There are clear and practical social reasons for curtailing status assertion.[142] Restraining divisive extremes of competition for honour and status is an end in itself. But such concerns are not sufficient to explain why **cults** took it upon themselves to do so. Combining the idea that competition was not conducive to *communitas*, with the idea that humility was necessary to safely approach the divine, perhaps provides such an explanation. The sanctuary was the house of the god, and just as it is a common general feature of ritual to remove footwear and headgear on entering both temples and houses, restriction of self-assertion through dress might well have been regarded as appropriate for the same reasons.[143] It is, however, much easier to imagine the tension between the appropinquity of humility in ritual, and the opportunities for display, producing the occasional upset of the balance – and in such a way as to require penalties – than it is for simple sexual display.

Dedication, either as a penalty, or as a condition of entry, would support this.[144] It indicates that the garments were not impure in themselves, and its effect would be that the status of the garment accrues to the deity, not to the wearer.[145] None of this is to suggest that Greek ritual demanded self-abasement. It seems likely that even the prescription of white dress allowed distinctions of status, not least in the different degrees of whiteness that would be available to those of different means. As so often in Greek culture, one can imagine that moderation was the aim: distinctions rather than divisions, recognition of the degrees of respect appropriate to gods and men.

8. Conclusions

In terms of this thesis as a whole, the aim of this chapter has been to locate the social significance of colour in clothing (especially within the particular context of ritual participation, but drawing also links to wider social behaviour). In doing so, it has preferred not to make statements about the 'meanings' of specific colours as they may be inferred from other evidence. The point has been largely to consider

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[141] Outside of myth, the concept was applied to numerous instances of individuals who attempted to disrupt the natural, social, order, to their own advantage: Mnecrates claims to be Zeus and dresses up as him: Ath. *Deip.*7.289e See p.164-66 for examples of clothing used to emphasise the status of the divine.
[142] cf. funerary legislation, n.83 & 85
[143] Footwear & headgear, see table p.234 & Flugel (1936)
[144] See p.234-35 above and generally, Ch. 3
[145] Parker, (1983:144)

colour, as a quality of clothing, in a social context.[146] It has been argued that these regulations represent instances of the breakdown of informal orderings of dress and comportment, and that such breakdowns, for wider social reasons, were more likely to occur within female centred cults. This is an important point, because it emphasises that the parallel concerns with colour and with women are parallel, and not conditional: other chapters have indicated that there was no shortage of colour in men's clothing.[147] It has been suggested that the regulatory attention devoted to colour was occasioned by its importance in terms of visibility, and that the importance of visibility itself was heightened by the communal ritual context. Further, it has been argued that as well as practical visibility, colour provided an index to two particular aspects of behaviour which were of particular importance to effective ritual action: physical purity or preparation for ritual, and willingness to subjugate personal self/status assertion to the common good.

If in doing so, relatively little attention has been devoted to specific colours, nevertheless, the colours concerned are those encountered by other chapters.[148] Not only do these regulations, by prescribing white clothing (and comparable prescriptions of cleanliness) confirm and reinforce the inferences drawn above, that white clothing connoted purity and cleanliness.[149] They also in their **attention** to white clothing accord with the observation that this was not the standard or base colour for Greek clothing.[150] The attention given to 'purple' and its parallels with the attitude to gold, are unsurprising in themselves. No further discussion is required to establish or define the use and significance of this group of colours. What the regulations do draw attention to, again by parallel treatment with 'purple,' is the salience and social significance of decorated clothing.[151] It is not abundantly clear whether the term ἀνθινὴν refers to flower patterns, or to bright-dyed textiles, but as Chapter Six has emphasised, these features would have much in common.[152] Proscription of black or dark clothing can be attributed to its association with mourning, although again, the evidence from dyeing processes indicates that black and dark colours were relatively unusual, and therefore visible.[153]

The final point to be made is the very restriction of the range of colours dealt with by these regulations. Were it not for the wide ranges of colour in clothing considered from other evidentiary contexts, this might indeed be considered evidence of the insignificance of colour (ignoring the clear importance accorded to it by the regulations themselves, of course) or of the absence of physical or cultural differentiation between colours for clothing.[154] Previous chapters have, hopefully, dispensed of such an attitude. And yet, this is perhaps the essential paradox that remains to be discussed by the Conclusion.

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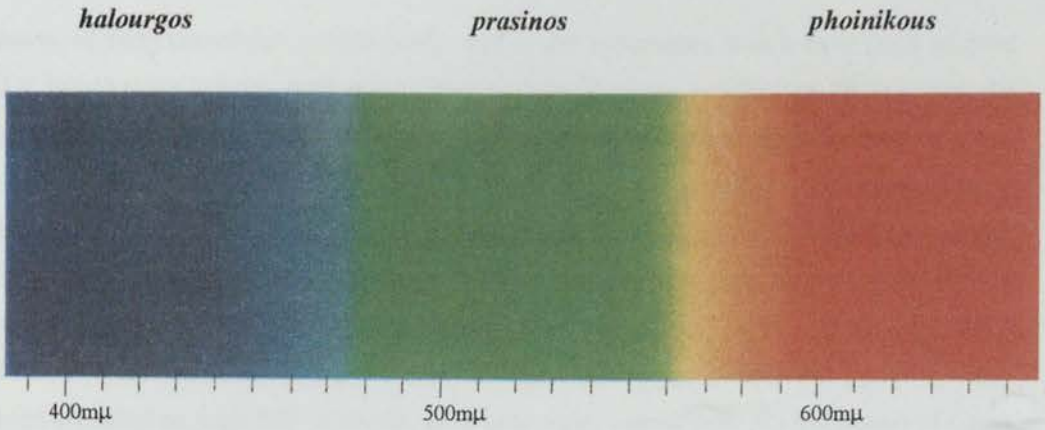
[146] cf. Ch.3, esp. p.67, p.97-100
[147] See p.200 and Harvey (1995) – discusses the historical association of dull/dark colours & male dress.
[148] See p.58
[149] See p.162, 165, 170 and p.212, 227
[150] See p.127, 148-51, etc. and p.181, 193
[151] See particularly **No.6** and Section 5.
[152] See p.212-3, 227-8
[153] See p.224, also relatively permanent, since they could not be altered by over-dyeing, p.227.
[154] See prefaces to Ch.3, Ch.5, Ch.6 as well as their discussions.

Conclusion: Colour in Ancient Greek Clothing



τὸ δὲ φοινικοῦν καὶ πράσινον καὶ ἁλουργὸν οὐ γίγνεται κεραννύμενον· ἡ δὲ ἶρις ταῦτ' ἔχει τὰ χρώματα. Aristotle *'Meteorologica'* 372a

"It is a light that seems unmediated either by the air or by the stratosphere. It is completely virgin, it produces overwhelming clarity of focus, it has heroic strength and brilliance. It exposes colours in their original prelapsarian state, as though straight from the imagination of God in His youngest days, when He still believed that all was good. The dark green of the pines is unfathomably and retreatingly deep, the ocean viewed from the top of a cliff is platonic in its presentation of azure and turquoise, emerald, viridian, and lapis lazuli. The eye of a goat is a living semi-precious stone halfway between amber and arylide, and the crickets are the fluorescent green of the youngest shoots of grass in the original Eden. Once the eyes have adjusted to the extreme vestal chastity of this light, the light of any other place is miserable and dank by comparison; it is nothing more than something to see by, a disappointment, a blemish." de Bernieres (1998:6-7)

"Is there any system of objects, a system of some magnitude, which can dispense with articulated language? Is not speech the inevitable relay of any signifying order? If we go beyond a few rudimentary signs ... can clothing signify without recourse to the speech that describes it, comments upon it, and provides it with signifiers and signifieds abundant enough to constitute a system of meaning?"

"'Real' clothing is burdened with practical considerations (protection, modesty, adornment); these finalities disappear from 'represented' clothing, which no longer serves to protect, to cover, or to adorn, but at most to signify *protection, modesty, adornment."* Barthes (1990:ix,12)

"The garments of the Ionians are violet-dyed, and purple, and saffron, woven with a lozenge pattern: but the top borders are marked at equal intervals with animal designs. Then there are the sarapeis, *quince-yellow, purple and white, others again of sea-purple. And Corinthian-made* kalasireis; *some of these are purple, some violet-dyed, some hyacinth; one might also buy these in flame-colour, or the colour of the sea. There are also Persian* kalasireis, *which are the finest of all."* Athenaeus 12.525c[1]

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[1] In order, ἰοβαφῆ, πορφυρᾶ, κρόκινα, μήλινοι, πορφυροῖ, λευκά, ἁλουργεῖς, πορφυραῖ, ἰοβαφεῖς, ὑακίνθιναι, φλογίνας, θαλασσοειδεῖς.

The nature, of both the subject of this thesis, and of the approaches which have been adopted toward it, would make it facile, even at this point, to draw sweeping conclusions. In large part, the specific inferences made available by the evidence have been drawn and discussed as they arose. It has been no part of the intent to construct a 'grand narrative,' which purports to describe or explain the subject as a whole. As a **thesis**, the aim has been investigative: to suggest approaches, to define perspectives, rather than to create certainties. Nevertheless, there may be some value in summation.

First of all then, let us return to where we began: the various quotations on page 1, which have been repeated on page 278. Aristotle, as is only right, comes first. No discussion of Greek colour is complete without this passage and its deceptive simplicity, which is, I believe, illuminated by the spectrum of visible light, and its wavelength divisions. By dividing his rainbow into three, Aristotle disabuses us of any illusions that we might have entertained about the absolute nature of colour and its categorisation. We are well warned that our subject is complex.

Of course, one might claim that his view is undermined somewhat by the middle phrase: ὃυ γίγνεται κεραννύμενον. One might agree with Lee: "The colours of the rainbow are six ... The painters' primary colours are red, *yellow,* and blue; not red, *green,* and blue as Aristotle says. Green can be produced by mixing yellow and blue, but yellow cannot be produced by any mixture."[1] Thus we are comforted: the Greek view is not different, it is just *mistaken*. On the other hand, it can be questioned, given that Aristotle's era predates the invention of ready-mixed pigments by almost two millenia, whether what he means is mixing colours, or mixing pigments from a colouring material plus binder. Similarly, artistic expertise might suggest that the statement is true either way, that it is not truly possible to reproduce the vibrancy and clarity of the pure refracted radiant light of the rainbow.

It should be clear by now that this thesis inclines towards the latter perspectives as opposed to the former. Colour is not known, not a constant, and if it were, there should be little interest in researching it. It matters more that Aristotle has defined and communicated his perception, his culturally conditioned abstraction, than whether I believe it to be correct. Throughout, this thesis has been concerned to work as much as possible from perspectives proposed by the evidence, rather than imposed upon it. Were this not the case, then this Conclusion could have consisted of syntheses of the references to red, yellow, blue, that had been found in the sources, and statements of their 'meaning.' As Chapters One and Two made clear, the application of such categories to the Greek evidence is neither tenable, nor helpful For precisely this reason, these chapters provided necessary theoretical background to the more direct evidence. Examination of philosophical texts established a range of colour categories against which the evidence for colour in clothing must be set (and perhaps more significantly, the fact that, in light of the situation summarised by p.58, colour in Greek clothing was not, in any case, generally a matter of the basic – red, yellow, blue – modern, hue-centred, categories). A more fundamental impact was to establish the **essential incompatibility**, in both specific and general cases, of such categories with Greek colour-conceptions.

The significance of discussing colour terminology may have been less apparent, given that the subject is colour in **clothing**. I hope that, by this stage, such significance has been retrospectively demonstrated, in a practical sense, by the important fact that the terms encountered in the direct evidence were found to be consistently secondary: confirming, from a linguistic point of view, the conceptual distinction established by Chapter One. However, the methodological importance of considering colour-terms ought to be equally apparent – although the subject is material, the evidence is almost entirely verbal. Words once provided the link between the abstract conception and the material 'reality.' It is words which now supply almost the only evidence of that long-vanished reality. Not to consider them, as integral, would be indefensible. Therefore, let us move on to colour in language, as opposed to perception and categorisation.

The second passage, in a familiar metalanguage, can be agreed to be a fair, even eloquently accurate, description of Greek light, colour and landscape. The quality of light in the Mediterranean should certainly be borne in mind for its effects on colour. Nevertheless, were we to criticise this passage *as though it were in Greek*, it might be noted that a very high proportion of the terms used refer ordinarily to material referents, rather than being abstract or 'basic' terms. Despite this, we understand them well enough, and the fact that in this context they refer to colour, and to light and dark. Of course, this passage is also relevant in that the author is writing in character, as an educated Greek who knows his Homer, and in this context, the refusal to describe the sea as 'blue' and the vegetative qualification of the green of crickets are particularly pleasing. Ignoring this aspect of context, we might take the passage to be representative of the ordinary use of English colour-terms. Context is important, particularly in literary description. Words and their use are not simple or singular. Statements may always be contradicted: the eyes of goats are not "living semi-precious stones." This does not make it a bad description.

The lesson taken from this passage is that one can go too far in insisting on 'meaning' and derivation in language, as opposed to connotation, and contrastive *use*. Of course the author could have said that the light was bright, the trees simply dark green, the sea blue, the goat's eyes yellow, the crickets bright green, and the overall effect pretty. The important point is that to do so would neither have been better writing, nor more **accurate**. This thesis has proceeded on the assumption that the sources understood, and used appropriately for each context, the terms they applied to colour. The fruits of this were introduced early, by the oft referred to page 58. Where colour-terms are being used **in**discriminately, they should not, as they do, appear consistently. Where specific terms are used consistently for colour in clothing, and contrastively from 'general' colour terms, they constitute a vocabulary, and a basis for objecting to Osborne's statement: "There is nowhere in Greek literature any hint of subtle discrimination of hues or shades in textiles which nowadays is taken as a matter of course."[2] This is not to say that ancient Greek possessed as many subtle, textile-based terms as does modern English.[3] Nevertheless, particular aspects of colour in clothing are represented with consistency by the selected source materials:

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[1] Lee, H.D.P. [Trans.] (1952:242)
[2] Osborne (1968:276-6)
[3] See p.56-59

particularly lightness/whiteness, darkness/blackness, pattern, decoration and variegation of colour, and colours in the 'purple' and 'yellow' ranges.[4]

It is perhaps worth re-emphasising, at this point, that this thesis has not attempted to contribute to the definitive translation of Greek colour-terms, despite providing passing suggestions as to their reference, for the benefit of readers who have not made special study of the problem. It is entirely possible that these suggestions are 'wrong:' the term μηλινὸν may, given the physical and dyeing properties of quinces, have referred to a colour we would call 'pink:' the term βατραχειοῦν, equally, may have referred primarily to variegation or textural qualities associated with frogs, rather than their hue. Similar possibilities might be raised for each and all of the Greek terms, but they would, under the adopted approach, nevertheless remain largely irrelevant. It is integral to the methodology of this thesis that terms are understood to refer to categories of colour, not to 'colours.'

The next quotation relates to another aspect of methodology. Clearly, the theoretical attitude suggested by Barthes was central to the approach taken towards the Brauron Inscriptions. In that context, it provided both an alternative perspective to considering the inscriptions purely as either words, or transparent records of things, and functioned as a positive means of considering the cultural existence and import of coloured clothing. However, the applicability of this attitude could well have been extended to impose a conceptual and structural unity on the thesis as a whole. It has, after all, been consistently argued that the evidence it presents must be considered to *represent* colour in clothing, rather than to *depict* it in a simple sense. (It must be emphasised that this is not a **limitation** of the evidence. Rather, insofar as the representational character of the media studied is recognised and engaged, it presents an **opportunity** – though necessarily one that restricts the attention given to creating concrete conclusions).

To return to representation and semiosis: it is apparent that, insofar as the bodies of evidence considered represent coloured clothing, they enjoy a 'coded' relationship with both the 'real' clothing to which they once referred, and its (implicit) significance, and that this relationship is defined by their communicative intent. Thus, it would be possible to consider all of the representational evidence in terms of the distinction between 'real,' 'terminological' (whether the terms are actual words – as in philosophy and inscriptions – or systems of conventional reference – as in drama – or pigments – as on pots) and 'rhetorical' codes. However, any unity thus created would largely be for its own sake, or at least in order to provide a more satisfying read, and of no particular relevance, either to the evidence or the inquiry.

Although such a thouroughgoing application has therefore been rejected, nevertheless, the idea has had an impact on the methodological approach. It reminds us that colour in clothing is being used as a signifier in the evidence, and as such cannot simply be conflated either with the signified 'real' clothing on which its use was based, or the significance which such use implies

[4] Although comparisons have been made throughout in footnotes, this thesis does not aim at completeness in terms of literary references. Many other terms are applied to colour in clothing in Greek literature, and have not been included here. However, this thesis has considered some

(the social 'meanings' of clothing). Further, it emphasises the importance of communicative intent, demanding that each type of evidence be considered on its own terms. It cannot be assumed that the philosopher, cataloguer, dramatist, painter, dyer and legislator shared a single common purpose (much less that this purpose was to depict coloured clothing for our benefit) or used colour in clothing as an aspect of their attempts to communicate in exactly the same way, simply because we should like to construct an integrated picture of colour in clothing. There are any number of ways in which the tentative conclusions drawn in the body of this work might have been combined, elaborated, and used in support of one another. If answers had been more important than questions to my intent, I would have taken them.

With this in mind, let us turn to the final passage. Here, Athenaeus describes the garments of the Ionians. Remembering our lessons, we shall attend to context and deduce that what he means is **not** that all Ionian garments are these colours, or that these are the only colours of Ionian garments. Rather, these are the colours that strike the observer of Ionian garments as salient, as 'varying meaningfully.' And they are also the colours in clothing which created a particular impression of the Ionians and their material culture. This impression is clarified, if we leave the colour-terms aside (and we must, if the context is to illuminate them) by the use of non-standard garment terms, by the reference to trade and purchase, and by 'finest of all.' Athenaeus is not providing a technical or empirical description of Ionian everyday dress. Surely he is conveying that the Ionians are exotic, that they trade and are wealthy and sophisticated, technically and in their tastes. It is not insignificant that he does so by describing garments and their colour: clothing contextualises people, in art, literature and life.[5]

The colour-terms themselves are also notable: one can hardly fail to notice that of twelve, seven might comfortably be translated by English 'purple' were they not being used in conjunction, and a further two by 'yellow.' Is this lack of imagination? Failure of terms to distinguish clearly between hues? Were Ionian garments mostly purple and yellow? The attitude and analyses of this thesis have hopefully suggested an alternative. Athenaeus is paying particular attention to making fine discriminations between different shades (and possibly dye-process results, given ἰοβαφῆ, πορφυρᾶ, ἁλουργεῖς, κρόκινα, μήλινοι - all dye-related terms) within the colour-categories that were of particular salience in clothing, precisely because they were particularly important, and because subtle differences between them were recognised and significant. To us, perhaps, they all look purple and yellow, but this is not the fault of Athenaeus. These must all have been distinct terms for colour in textiles, indicating meaningful differences, or they would not have been used in conjunction, and in a wider context which suggests that sophistication, variety, and expense are the indirect connotation.

To sum up, this thesis has found that a restricted range of salient colour 'categories' for clothing appear time and again in the evidence. Within these, discrimination is carried out by use of relatively 'technical' terms relating to dyeing and patterning. Outside the main categories,

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major and complete bodies of evidence. The fact that the whole variety of terms does not occur within these is important. This is particularly the case with 'red' clothing, see p.171-72, 225-28

colour in textiles is also often denoted by *particular* terms – not those that would necessarily be applied to the colour in another type of referent. White and black are, as they are generally in Greek culture, prioritised in many contexts, as, of course, is purple. It has also found that despite this restricted range of terms, there is little evidence that Greek clothing lacked a wide variety of colours, although it seems likely that the availability of particular qualities of colour (particularly brightness, pure whiteness, and saturation) was practically restricted. Further, pattern or variegation of colour has emerged (not only from Brauron, undoubtedly the best single source for the details and variety of classical dress) as being of at least, if not greater, salience than 'base' colour. As such, it clearly had both symbolic and social significance, and deserves much further attention, although it should not, from the evidence considered here, be treated in isolation from other aspects of colour in clothing.

So far, this Conclusion has tended to emphasise what the thesis has not done, and indeed, no claim is made to have provided an integrated perspective, or to have drawn concrete conclusions about the social meanings of colour in clothing on its basis. I see no shame in admitting that in the course of the research, my focus changed from the social, to the methodological, even epistemeological, aspects of the subject. Nevertheless, the various chapters are intended to be seen **in relation** to one another, a relation which perhaps bears restating.

Chapter One sought structure in Greek colour-conception and categorisation, and found it, not primarily in hue-relationships, but in colour as a continuum between the extremes of λευκὸς and μέλας. It argued that the Greek philosophers and their language accurately reflect a consistent view of their colour-world, and that this view, obscure as it now may seem, must be of integral importance to any modern perspective on colour in Greek culture. This chapter argued that colour, as it would be considered by the thesis, was not hue. It introduced various 'kinds of colour' and provided a comparative range of Greek colour conceptions, against which colour in clothing might be measured.

Chapter Two elaborated on this beginning, firstly by indicating that the Greek language need not (when viewed as representative of categorisation, rather than linguistic 'progress') be seen either as so atypical as to preclude useful cross-cultural comparisons, or as deficient in any meaningful way. Secondly, the chapter was concerned to emphasise that for colour in clothing 'secondary' colour-terms, not 'basic,' are of primary relevance and interest (of reciprocal importance for the role of colour, as a feature of clothing and other forms of material culture, within the development and use of language). By doing so, it laid the foundations of the idea that colour in clothing, in the direct evidence, constituted a functioning system (in both the linguistic and semiotic senses) which was not contiguous with either the basic Greek conception of colour and colours, or with modern 'basic' hue categories. The latter point conditions the approach of the thesis to the direct evidence, while the former constitutes an important basis for any future argument that colour in clothing was socially meaningful.

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[5] See p.179-80 on clothing as read, p.154-63, p.169-72, and p.266-77 on colour and visibility in clothing.

Although these two chapters are, of necessity, regrettably brief, and thus intense, they define an attitude, and are thus integral to understanding the main body of the thesis. In short, this attitude should be borne in mind throughout, although it is rarely referred to. Chapters Three, Four and Five are of a different nature – they describe a variety of approaches to direct, and (relatively) comparable, evidence, related, on the most basic level, by date and origin. In these three chapters, we move from the general to the specific.

Chapter Three kept the focus on language, providing a perspective on the Brauron inventories which emphasises that even the most opaque use of language provides its own context, and argues that description can be as, or even more, revealing, of the cultural and social meanings of objects than the physical objects themselves. It found that the assertion of decoration and the marking of colour were second, as descriptive criteria, only to garment type, and that this importance was given them in the context of 'real' and 'written' garments as signifiers of status and worth.

Chapter Four emphasised the constructive nature of references to colour in the clothing of drama. Its primary purpose was to illuminate the fact that this context – so different, in terms of language-use and communicatory intent, from the inscriptions – nevertheless shares a similar and restricted range of terms for colour in clothing, thus indicating the operation of a common conceptual framework. The dramatic material was also seen as complementary to that of Chapter Three in elucidating the abstract significance of these colours, which had been simply asserted by the catalogues.

Chapter Five, even more so than Chapter Three, used fragments in an attempt to suggest a bigger picture – that of the general use of colour in dress. Here again, structure emerged from deconstruction, in a way and a form that was to me the most surprising of all. Perhaps the most fundamental import of this evidence (aside from being non-verbal) was that, since its patterns cannot have been conventional (as are those of drama, though not necessarily wholly so) they may reveal patterns of actual use.

If we may justify means in terms of ends, then this chapter should be seen as particularly significant. The underlying aim of this thesis has proved to be the investigation of **whether** colour in Greek clothing can be considered to have possessed social meaning, rather than **what** that meaning was. This chapter tests the hypothesis precisely because representation of colour in clothing through this medium is not conditional upon its (putative) social meaning. These figurative images represent a full range of social significance ascribed by the painters to their subjects: that non-conventional patterns of colour use exist within this, but are not, in themselves, an overt object of communication or site of significance, makes lekythoi excellent evidence for the existence of social meaning. The approach taken to this evidence was occasioned by the fact that this seems to me a far more significant conclusion than its potential for confirming detail (which is, in any case conditional on the conclusion itself).

These three chapters, therefore, intend to establish both the existence, and to an extent the general nature, of the social meanings of colour in clothing. However, their very specificity is restrictive. While Chapters One and Two define a general attitude to the character of the direct

evidence, Chapters Six and Seven therefore, attempt to provide it with a general context, respectively practical and social. Such generality is emphasised by the fact that these last chapters concern evidence which is not comparably restricted in time and origin.[6]

Chapter Six addressed the way in which colour choices must be structured by practicalities. Its intent was to illuminate the restricted range of terms (and thus defined/assumed categories) for colour in clothing, by comparison with the freedoms and restrictions imposed by natural dyeing materials and techniques, and by Greek methods of textile construction. In doing so, it re-emphasised the importance of the 'qualities' of colour, other than hue, which had formed a major feature of the discussion in Chapters One and Two.

Finally, Chapter Seven attempted to place the cumulative impression of colour in clothing thus created in its social context as an object of cultic regulation, and therefore of significance in group and interpersonal interaction. The range of colours concerned was seen to be even relatively restricted, but nevertheless, consonant with those apparent in the other evidence. Further, the wider concerns and characteristics of the ritual context allowed some more detailed inferences to be drawn about **why** colour. And the prominence of colour in the regulations underlines and confirms its inherent and wider conceptual significance as an aspect of clothing.

Given the time and resources available to this research, it was never going to be possible to create an encyclopaedic understanding of this complex subject - one which, although its importance to understanding the source material varies from context to context, nevertheless forms part of almost all our evidence about the Greeks. Certainly, it has not been possible, in a little over 100,000 words, even to reproduce, still less to fully discuss, all aspects of that limited understanding which was achieved. My aim in writing, rather, has been to produce something representative: of the scope of the subject, of its complexities, limitations and difficulties. As always, research seems primarily to produce, not satisfying answers, but simply more fascinating questions. And naturally, the questions which remain are not only those which require more, complex, research to investigate, but also those which seem inevitably more interesting and valuable than the road already travelled.[7] In addition to such questions though, the thesis has outlined or suggested, rather than developing, conclusions. It is to be hoped that such outlines themselves will stimulate future, necessary, development of the subject.

Nevertheless, I believe that what I have accomplished is important, insofar as it suggests methodologies and conceptual frameworks within which future research might operate, and insofar as it indicates that meaning (or at least pattern and structure) did exist in colour in Greek clothing, and survive in certain ways to be considered and analysed. If I have been more concerned to demonstrate that such meaning exists, why it may be significant, and how it can be

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[6] Much of the evidence for dyeing is late, as are a proportion of the cultic regulations. Both come from across the Greek world. This would be problematic only if the subject (and title) of the thesis was 'Colour in Fifth/Fourth Century Atheninan Clothing.'

[7] There is, for instance, certainly fascinating information to be analysed in the incidental references to colour in the clothing of persons presented by the historical and descriptive writers: in comparing paint traces on statuary in different periods, and with other media: and in undertaking a complete survey of the relative use of the various types of colour-term in reference to clothing (see p.56ff) and so on, and so forth.

found, than **what** it is, then this should be attributed to my own perception of historical endeavour: as we create new pictures from the fractured images of the past, meaning is easily created and imagined.

The above discussion is intended to remind the reader that this thesis has applied particular, tailored, methodological approaches to specific bodies of Greek evidence, and that these approaches were conditional, not on the **content** of the evidence, but on its **context.** At the end of the research process, I am only further convinced of the value of this approach. It is tempting, at this late stage, to abandon it; to summarise the data according to content, across contexts, to provide the 'Cliff Notes' version which would allow me to say 'eureka' of definite and defined meanings for colour in clothing. But to do so would be to misrepresent the body of the work. In general, what I have found, and what I have wished to point out in the evidence, are the patterns whose existence betrays meaning: approaching disparate groups of evidence in different ways has revealed similar patterns and structures.

I have said 'whose existence betrays meaning:' this thesis has attempted primarily to demonstrate that such meaning did once exist, and to suggest methodological approaches which might offer the possibility of recovering it. It has not attempted to define, in any detail, what that meaning, or more correctly, those meanings, might have been, although I would certainly argue that it provides essential groundwork for future attempts to do so. This may indeed have come as a disappointment to those readers who had hopes of finding an opinion on the social meanings of colour in Greek clothing. However, such an opinion would have had to depend on at least two assumptions – that 'colour' is not, in itself, a research object, but rather a cross-cultural constant; and that the ways in which clothing and colour signify, and the ways in which they are used as signifiers, are irrelevant to an investigation of their significance. The research process destroyed these assumptions in my mind, and therefore, the purpose of this thesis has been to lay a foundation for future investigations of colour in clothing – and its social meanings – which do not depend on them. Readers who maintain that such assumptions are defensible are welcome to take the material presented (the structure of the thesis has tried to facilitate this) and draw their own, more ambitious, conclusions.

Postscript ~ 26.3.03

Writing a thesis is surely an experimental process – few people write two – and as such, the steepest part of the doctoral learning curve. This thesis (it may be obvious) was certainly so for me, and appears now, six months on, as an intensely, even embarrassingly, personal enterprise. But in retrospect, it is also a product of the times, and so the following passage sums it up for me:

> "In other words, the only authentic mode of expression now is that of the sublime. It is to be a self-conscious postmodern sublime, however, which has renounced all nostalgic yearning for correspondence between our constructions and the world. Existing as a form of radical subjective fictionality, an aesthetic which refuses mimesis, organic unity, consensus, it offers multiple perspectives which ostentatiously and dramatically refuse to coalesce or resolve into one transcendent and profound whole." Waugh (1992:29)

Hubris=Nemesis in the third millennium as much as ever before, however, so I should also acknowledge Blake as being an actual influence at the time of writing.

> "Everything possible to be believed is an image of truth."
> (Blake, *The Marriage of Heaven and Hell*)

Declaration

The above thesis, testament to three years of chronic illness and poverty, is entirely my own work, except as referenced in the text. (Chapter Seven, Section 5, is adapted from a paper to be published in Davies, forthcoming).

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